

Enhancing Personal Effectiveness: The Impacts of Costa Rica Outward Bound on  
Students in an Independent School in Southwestern Ontario

Heidi Burrows, HBOR (Hons), BA, BEd.

Department of Graduate and Undergraduate  
Studies in Education

Submitted in partial fulfillment  
of the requirements for the degree of  
Master of Education

Faculty of Education, Brock University  
St. Catharines, Ontario

©Heidi Burrows 2007

*I cannot rest from travel: I will drink life to the lees:*

*all time I have enjoy'd greatly.  
I am a part of all that I have met;  
Yet all experience is an arch wherethro'  
Gleams that untravell'd world, whose margin fades  
For ever and for ever when I move.*

*Tennyson, 1953*

## **Abstract**

This project examines students in a private school in southwestern Ontario on a 17-day Costa Rica Outward Bound Rainforest multielement course. The study attempted to discover whether voluntary teenage participants could increase their self-perceptions of life effectiveness by participating in a 17-day expedition. A total of 9 students participated in the study.

The experimental design that was implemented was a mixed methods design. Participants filled in a Life Effectiveness Questionnaire (LEQ) at four predesignated times during the study. These time intervals occurred (a) before the trip commenced, (b) the first day of the trip, (c) the last day of the trip, and (d) 1 month after the trip ended. Fieldnotes and recordings from informal group debriefing sessions were also used to gather information.

Data collected in this study were analyzed in a variety of ways by the researcher. Analyses that were run on the data included the Friedman test for covariance, means, medians, and the Wilcoxon Pairs Test. The questionnaires were analyzed quantitatively, and the fieldnotes were analyzed qualitatively. Nonparametric statistical analysis was implemented as a result of the small group size of participants. Both sets of data were grouped and discussed according to similarities and differences.

The data indicate that voluntary teenage participants experience significant changes over time in the areas of time management, social competency, emotional control, active initiative, and self-confidence. The types of outcomes from this study illustrate that Outward Bound-type opportunities should be offered to teenagers in Ontario schools as a means to bring about self-development.

## **Acknowledgments**

Thank you to everyone who helped me to complete this project, including Joe Engemann for his insightful supervision, Costa Rica Outward Bound for the opportunity to conduct this study and for helping to further my education, the 9 student participants for sharing this experience with me, my family for their ongoing inspiration, and Jeff Burrows for motivating me until the end.

## Table of Contents

Abstract	Page iii
Acknowledgements	iv
List of Tables	vii
 CHAPTER ONE: INTRODUCTION	 1
Statement of the Problem	4
Purpose Statement	5
Research Question and Hypothesis	5
Limitations	6
Delimitations	7
Outline of the Remainder of the Document	8
 CHAPTER TWO: REVIEW OF RELATED LITERATURE	 10
Historical Conceptions of Self	10
Outward Bound and Self	12
Theories of Development	14
Life Effectiveness and Flow	17
Life Effectiveness and Self Effectiveness	19
The Role of Group on Self Effectiveness	23
Summary	24
 CHAPTER THREE: METHODOLOGY AND PROCEDURES	 26
Research Methodology and Design	26
Instrumentation and Field Procedures	26
Participant and Site Selection	29
Data Processing and Analysis	30
Methodological Assumptions	30
Limitations	31
Summary	32
 CHAPTER FOUR: PRESENTATION OF RESULTS	 33
Quantitative Analysis	34
Qualitative Analysis	40
Observations of Time Management	41
Observations of Social Competency	43
Observations of Achievement Motivation	45
Observations of Intellectual Flexibility	48
Observations of Task Leadership	50
Observations of Emotional Control	52
Observations of Active Initiative	54
Observations of Self-Confidence	56
Summary	59

CHAPTER FIVE: CONCLUSIONS AND IMPLICATIONS	61
Does Outward Bound Work? Implications for Practice	62
Are Outward Bound Effects Equally Strong in All Areas of Life	
Effectiveness? Implications for Theory	65
Implications for Further Research	67
Final Word	68
References	70
Appendix A: Life Effectiveness Questionnaire	75
Appendix B: REB Clearance Form	79
Appendix C: Costa Rica Outward Bound Trip Itinerary	80

## **List of Tables**

<b>Table</b>		<b>Page</b>
1	Description of the Life Effectiveness Questionnaire	20
2	LEQ Factor Scores at Different Trip Time Intervals	35
3	LEQ Total Scores at Different Trip Time Intervals	39

## CHAPTER ONE: INTRODUCTION

Self-effectiveness is a term that has been created to characterize the importance of developing one's "self." Self-effectiveness is defined as "the way [manner] in which a person views or perceives himself [herself], his [her] attitudes, beliefs, feelings and personal expectations" (Ewert, 1988, p. 49). Outward Bound founder Kurt Hahn believed in education that called forth and developed the deepest qualities of moral fiber and caring. The idea behind the design of Outward Bound courses is that by creating a series of intense experiences, participants' self-concept and capacity to cope with life could be enhanced (Hahn, 1957).

Although outdoor education programs directed toward improving self-effectiveness have been in existence for many years (Schultz, Crompton, & Witt, 1995; McCarthy & McCarthy, 1984), Hahn is regarded as a major founding influence in the field due to the global Outward Bound movement with its schools in England, Germany, Africa, Australia, New Zealand, Canada, the United States, and, eventually, Costa Rica. As a result of the negative social climate in Germany during the 1940s, Hahn (as cited in Gass, 1993) believed in the need for real "hands-on, practical challenges for the development of character of modern society" (p. 16).

Outdoor education is "when small groups of people participate in organized adventurous activities in natural settings and primarily use themselves as the resource for solving problems" (Neill, 2003, p. 1). Programs such as Outward Bound and those offered by The National Outdoor Leadership School (NOLS)



have been addressing the needs of character development and personal growth since the early 1940s (Ewert, 1988).

The primary focus of outdoor experiential education programs is the introduction of compassion in an environment that will not destroy a student's intellectual freedom (Gass, 1993). Experiential education is defined as a holistic educational philosophy

which recognizes the trans-active process between the teacher, student, subject and the environment, placing equal importance on both the content to be taught and the process by which it is taught, recognizing and incorporating the experiential learning process of both the student and the teacher". (Marsh, 1999, p. 2)

These programs not only emphasize the importance of self, but also the importance of the "group." The focus on the group is an important aspect of the process, and the recommended group size consists of 8 to 14 students (Gass, 1993). A group of 8 to 14 students is large enough for diversity to exist within the group, but small enough so that each participant has the opportunity to be a contributing member of the group. The programs consist of a series of both mental and physical challenges which often appear to be dangerous or impossible. The challenges increase in difficulty as the courses progress to keep the participants in a state of continual learning. This approach allows course participants opportunities to problem solve and to take calculated risks to overcome challenges and to then experience new, more complicated challenges.

One method often used to challenge the students and to encourage an increase in their self-effectiveness is the multielement Outward Bound course, with the

culminating activity being a wilderness solo (Wilson, 1981). A multielement activity is a course that includes a diverse combination of activities (e.g., back-country hiking, whitewater rafting, climbing, rappelling, community service, a solo, and surfing). The purpose of a trip of this nature is to allow the participant the opportunity to stay in a constant state of "flow." Csikszentmihalyi (1977) defined the flow response as a "holistic response" (p. 14) or one's ability to develop moral character by being challenged mentally and physically. This occurs when total participant involvement takes place. Flow is when participant skills match the opportunity for action. Optimal flow is when the skill set constantly increases and the level of skill difficulty of desired tasks also increases to create a positive learning experience (as cited in Gass, 1993, p. 48).

A solo is an experience where a participant spends a period of time alone in a given area (Priest & Dixon, 1990). During this period of time, the participants reflect upon themselves, group relationships, personal relationships, and recent experiences (Priest & Dixon). In 1953, Outward Bound adopted this method in an attempt to test survival skills to facilitate reflection as a culminating activity at the end of a physically and mentally demanding course (Wilson, 1981).

In the early days of Outward Bound solos, students were sent on a solo for 24 hours to test their survival skills (Wilson, 1981). Therefore, the solo was used as a means to test a student's "hard" skills. Outdoor education courses, which include solos, have changed their focus somewhat. Instead of the traditional survival skills test, solos include extensive time in which helping students understand that the relevance and meaning of their personal development and wilderness experiences are priorities and

survival skills are secondary. Journal writing, time alone for reflection, staff modeling, and self-disclosures are commonly used to exercise the importance of developing a set of skills to develop self-effectiveness that can be transferred to real-life settings at the conclusion of any given course (Gass, 1993).

Outdoor education has been recognized as having the ability to produce increased socially desired benefits (Schuett, 1993). The use of outdoor education, therefore, has become a means of aiding the participants in reflecting upon experiences and examining their own self-effectiveness. In addition, outdoor expeditions are a means of altering life choices in a positive manner and facilitating a life-affirming experience to increase life effectiveness (McIntosh, 1989). Life effectiveness is a term that refers to an individual's ability to adapt to changing circumstances in everyday life and to make positive decisions that allow him or her to thrive in day-to-day living (Neill, 1997).

### **Statement of the Problem**

Being a teenager can be both wonderful and challenging. Teenagers must deal with tough issues and must make life-changing decisions. Teenagers deal with stress from issues such as self-image, friendships, peer pressure, family relations, achieving their goals, and managing their time. Outward Bound programs are designed to help participants build a set of skills that can help them navigate their way through calculated, risk-taking decisions in an outdoor environment. They are also designed to illustrate to participants how skills learned in the field can be transferred to everyday life.

The effectiveness of treating adolescents in a wilderness setting using Outward Bound and other outdoor adventure programs with nonvoluntary teenage participants is

well documented (Neill, 1997). It has been strongly suggested (Hattie, Marsh, Neill, & Richards, 1997) that more research needs to be conducted with respect to voluntary teenage groups on outdoor expeditions, as very little data on this specific group have been collected to date. This study adds to the existing body of knowledge on the impact that Outward Bound programs have on life effectiveness.

### **Purpose Statement**

The purpose of this study was to describe the similar and different impacts shared by participants who experienced a 17-day multielement Costa Rica Outward Bound expedition in March of 2006. Of concern is whether or not a 17-day wilderness expedition is an acceptable means of providing participants with an experience that will have an impact on their self-effectiveness. This study was an exploratory case study that has attempted to illuminate the impact of a 17-day Costa Rica Outward Bound trip on 9 teenagers aged 14 to 18 from a independent school in southwestern Ontario.

### **Research Questions and Hypothesis**

The following are the research questions that are embedded in this study.

1. Do multielement Outward Bound courses have an impact on participants' perceived levels of self-effectiveness?
2. If multielement Outward Bound expeditions impact participants' perceived levels of self-effectiveness, then in which area(s) does this occur?

The research hypothesis for this study is that a 17-day multielement Costa Rica Outward Bound course will have an impact on the perceived life effectiveness of the participants. The impact from this experience will be positive and will aid in attaining a higher level of life effectiveness for the participants. Specifically, the participants will

increase their outdoor skills and will develop new skill sets that will be transferable to everyday life at the conclusion of the expedition.

While there may be some exceptions to students achieving flow periodically throughout the 17-day expedition, overall the participants will benefit from the experience. Achieving flow is such an important component of the Outward Bound process because it is an educational theory that Outward Bound has adopted over the decades. Of key importance is that program participants are purposely taken outside of their comfort zone by trained instructors. The instructors teach participants new skills, which are eventually mastered to create group and individual change. Students will be inundated with these changing positive and rewarding experiences that will foster their self-confidence and their ability to make competent and safe decisions through ongoing instructor and group feedback. Ideally, participants will reach a state of flow where they are constantly using their new skill sets to overcome challenges, to develop their sense of self, and, therefore, to increase their life effectiveness.

### **Limitations**

Several limitations may have affected this study. The first limitation was the possible inability for the participants to understand the purpose of the study or the questions being asked on the Life Effectiveness Questionnaire and the questions asked during informal field interviews. According to Wilhite and Keller (1992), there is the potential for there to be a host of problems when studying teenagers. For example, attention span, literacy level, and tendencies to lie can sometimes create problems in the interpretation of any research questionnaire. However, in an attempt to overcome

differences in interpretation, the study was first given to a pilot group of five age-appropriate students to revise and add suggestions to provide clarity for the questions.

A second limitation that could have detracted from the validity of the study was the possibility that participants may not have wanted to share the variety of experiences that they were experiencing with the researcher. To overcome the participants' possible lack of motivation, the Life Effectiveness Questionnaire was chosen for this study because it was deemed to be user-friendly. Respondents were required only to circle answers. While the questionnaire is short and succinct, it was expected to provide the researcher with the necessary information.

In order to compensate for the potential unwillingness of the participants to share their thoughts of and experiences during the expedition, the researcher kept a group journal. The journal was used to record daily observations such as how well participants used their time (e.g., packing up personal gear), social interactions among group members (e.g., hiking order and rafting partners), the level of effort put into tasks (e.g., high, moderate, and low), how open participants were to new ideas (e.g., listening skills), how participants led (e.g., style of leadership), what participants' moods were (e.g., happy, sad, excited, etc.), how participants got involved in activities (e.g., active involvement, passive involvement, etc.), and how confident participants appeared. Observations were made by the researcher on a daily basis, and these data were collected and recorded in a researcher's journal.

### **Delimitations**

Outward Bound expeditions catering to teenagers are situated around the globe, but access to teenagers from different expeditions was limited due to the cost of

traveling to interview several hundred people around the world as well as the cost to mail out surveys to all expeditions during the 2006 year. Therefore, the research examined a sample population of teenagers who participated in a Costa Rica Outward Bound Wilderness School Youth Challenge expedition in the spring of 2006.

### **Outline of the Remainder of the Document**

Chapter Two reviews research on factors affecting historical conceptions of “self” and self-effectiveness, including questions that form the context for this study. The literature review also addresses the influence of Outward Bound on the self-effectiveness of course participants and the Outward Bound philosophy of learning. The role of the group on individual self-efficacy is discussed, followed by an analysis of the ways in which “flow” impacts on individuals on outdoor expeditions.

Chapter Three explains the methodology and procedures that were designed in order to collect the nine sets of data for the study. The measurement instrument is described, and a rationale for the collection of each set of data is discussed. In addition, a rationale as to why case study was chosen as the method of research is provided. The chapter closes with a discussion of the study’s methodological assumptions and limitations of the study.

Chapter Four presents a detailed account of the findings from each of the nine sets of data. Any interesting or anomalous data are highlighted, and themes or patterns evident in the data are identified, explained, and summarized.

Chapter Five explains conclusions and implications of the study’s findings. The findings were used to address questions raised in the literature review that formed the basis for the study. The conclusions were then used to explain implications for future

school outdoor education expeditions at the independent school in southwestern Ontario and for other schools in Ontario and Canada.



## **CHAPTER TWO: REVIEW OF THE LITERATURE**

The purpose of this chapter is to review research on factors affecting historical conceptions of “self” and self-effectiveness, including questions that formed the context for this study. The chapter also addresses the influence of Outward Bound on the self-effectiveness of course participants and the Outward Bound philosophy of learning. The role of the group on individual self-efficacy is discussed, followed by an analysis of the ways in which “flow” impacts on individuals on outdoor expeditions.

### **Historical Conceptions of Self**

Character development, personal growth, self-efficacy, and development of self-constructs are commonly valued goals in Western society and are largely taken for granted as desirable (Marsh, 1999). Emphasis on self has been studied in only a small fraction of Western human societies (Spiro, 1993). This emphasis on the development of personal growth is a relatively recent and evolving phenomenon (Miles & Priest, 1990). In previous centuries, up until the 1500s, the concept of self referred to only the corrupt, crude, and egocentric nature of humans (Marsh). Prior to the 20<sup>th</sup> century, community institutions, including schools and churches, did not emphasize the development of positive beliefs about self (Hattie, 1992). Instead, there was a much greater emphasis placed on developing communities and on developing a relationship with religion and with organized systems of government (Richards, 1997).

With the rise in free enterprise in North America and the amplified societal paradigm shift to valuing personal freedom and individual human rights, there has been a shift from commodity values to amenity values (Hattie, 1992). With changing lifestyles and changing industries, there has been a gradual shift in Western society

from a focus on manufacturing industries to information industries. This change has led to an awareness of preserving and enhancing living environments, and a focus on recreation time has emerged. Recreation is defined as activity that is undertaken for the restoration from the demands of work (Rossman, 1995). An important result of the change from industrial society to an information society has been an increase in the amount of recreation time that individuals have. One interesting development accompanying the availability of more time for recreation is the change from a community focus to a focus on self and self-development.

One key concern that has been manifested with the shift from a community focus to the focus on self is that education and parenting in North America have overemphasized praise and affirmation of children. The concern is that increasing self-esteem without increasing skill is dangerous because it may lead to an anthropocentric society that places too little emphasis on nurturing others and the natural environment (Neill, 2003). To clarify this point, it is important to reiterate that helping children to develop a healthy sense of self-esteem is not a bad thing. Research illustrates that a child with high self-esteem has the confidence to try new things, make new friends, and self-advocate when necessary, but the danger is for adults to overly praise children (Anderman & Maehr, 1994). Research indicates that overly praising children can pressure them to feel good about themselves even when it is not warranted and thus make it difficult for them to learn how to handle disappointment or to respect the feelings of others (Burr & Christensen, 1992). Instead, praise needs to be realistic and honest. Children also need to become sensitized to the ways they affect the self-esteem of others. Through positive role-modeling by parents, peers, teachers, community

members, and extended family members, children can foster a healthy sense of self-esteem that can help them to achieve their own goals and become productive members of society.

### **Outward Bound and Self**

The first Outward Bound School was opened at Aberdovey, Wales in 1941. Named after the nautical term “outward bound,” which describes the journey of a ship away from its home port into the open sea, the school focused around activities such as land and sea expeditions, rescue training, and service to the community. Outward Bound experiences were designed not only to invoke learning outside of one’s personal comfort zone but to also summon the reexamination of personal values (Chapman, McPhee, & Proudman, 1992). This program focus was synthesized to make up for what founder Kurt Hahn perceived as the gradual decline of a “diseased civilization.” Courses emphasized the “four pillars” improving the concept of self. These four pillars included physical fitness, self-discipline, skill development, and community service (Hahn as cited in Gass, 1993, p. 7).

These pillars were congruent with Hahn’s view of the primary task of educating people about the importance of physical and mental health, the importance of being a productive member of society, and the importance for protecting the natural environment. Today, the 50 Outward Bound schools around the world are overseen by Outward Bound International, whose mission is “to help people discover and develop their potential to care for themselves, others and the world around them through challenging experiences in unfamiliar settings” (Outward Bound International, 2004, p. 2). The focus of Outward Bound International continues to be consistent with Hahn’s

vision in its emphasis on individual growth, compassion, and the development of “self.”

Over the last several decades there has been considerable exploration of the learning or “outcomes” that students experience as a result of Outward Bound courses (Gass, 1993). Several studies claim that something life-changing happens to participants who take part in these courses (Neill, 1997). Many studies have suggested that students are affected by courses in the ways that the Outward Bound mission statement indicates (Neill, 1994). How or why those outcomes are achieved has been a less popular topic of inquiry. It is here that the work of Walsh and Golins (1976) has had a significant impact at demystifying what other researchers have had difficulty explaining.

In the most methodical model of the process through which Outward Bound students learn, to date, Walsh and Golins (1976) suggest that the

learner is placed into [a] unique physical environment and into [a] unique social environment, then given a characteristic set of problem solving tasks [thereby creating a] state of adaptive harmony to which the learner adapts by mastery, which reorganizes the meaning and direction of the learner’s experiences. (p.

16)

In short, Walsh and Golins define “the Outward Bound process” as including the seven elements of the learner. These include the prescribed physical environment, the prescribed social environment, the characteristic problem-solving tasks, a state of adaptive dissonance, the interaction among group members, the role of the instructor, and the transfer of new learning.

Since Walsh and Golins' (1976) innovative work, others have explored aspects of this process theoretically (e.g., Kiewa, 1994; Kimball & Bacon, 1993; Luckner & Nadler, 1997; Schoel, Prouty, & Radcliffe, 1988) or through research (e.g., Conrad & Hedin, 1981; Dyson, 1995; Hattie et al., 1997; Meyer & Wegner, 1998; Riggins, 1985). Although other researchers have attempted to follow the precedent set by Walsh and Golins with respect to studying the effects of Outward Bound courses on participants, analysis of these sources indicates that an understanding of the effects from these courses is far from thorough (McKenzie, 2000). Many theories relating to student participant outcomes on Outward Bound courses have yet to be explored through empirical research.

Although many researchers and outdoor experiential education practitioners have indicated a need for further research on the effects of Outward Bound programs on program participants (Hattie et al., 1997; Meyer & Wenger, 1998), few have constructed meaningful ways to collect, extrapolate, and discuss the effects of Outward Bound programs in an objective manner. More comprehensive research on this topic would enable us to move towards confirming, refuting, or extending Walsh and Golins' (1976) theoretical model of the benefits of the Outward Bound process and why it works. It is with this aim that James Neill's (1994) research model based on eight domains of "Life Effectiveness" was embraced and the current study was conceived.

### **Theories of Development**

The use of outdoor experiences for educational purposes has a long history. Plato taught the virtues of outdoor experiences for developing healthy bodies, which he believed would lead to healthy souls. Similar to the philosophy of Outward Bound,

Plato believed that the “moral values of exercises and sports far outweighed the physical value” (Plato as cited in Cohen, 1977, p. 6). Millennia later, Rhoades (1972) stated that the most compelling reason for using the natural environment is that it requires people to respond in a way that is valuable. These responses include “cooperation, adaptability, clear thinking, planning, careful observation, resourcefulness and persistence” (p. 26).

Most researchers trace the origin of modern adventure education to Kurt Hahn. In 1941, Hahn devised the first Outward Bound program for the Blue Funnel Shipping Line to reduce the loss of lives due to sinkings of their ships in the Atlantic Ocean. A month-long course was designed to provide hands-on, action-oriented programs for personal growth, service to others, and physical preparedness (Miles & Priest, 1990). The success of these programs led Hahn to promote the development of Outward Bound programs in England and then across the rest of the world. The common features of these adventure programs are:

- Wilderness or backcountry settings
- A small group (usually less than 14)
- Assignment of a variety of mentally and/or physically challenging objectives
- Frequent and intense interactions that usually involve group problem solving and decision making
- A nonintrusive, trained leader
- A duration of 2 to 4 weeks.

Another major contributor to the theories of development for outdoor education is Mihaly Csikszentmihalyi. Csikszentmihalyi (1977) discovered, from implementing a rigorous interviewing process that involved a number of participants in a diverse number of activities, that a state of flow can be achieved when a person participates in a recreational activity with total involvement. Total involvement refers to an awareness between task completion or action and increasing one's repertoire of skills to overcome the challenge (Gass, 1993). Specifically, research shows that involvement in various recreational activities can produce a positive outcome of being in a state of "flow" (Mitchell, 1983).

Csikszentmihalyi (1977) defined the flow response as a "holistic response" (p. 14) or an "optimal state in which there is order in consciousness" (p. 15). Flow theory is relevant to outdoor education because it sets a precedent for continual lifelong learning. Specifically, it gives outdoor educators a meaningful approach to create outdoor experiences that are not only meaningful for participants, but ones that are exciting, challenging, and new.

It is important for outdoor educators and outdoor education providers such as Outward Bound to implement Csikszentmihalyi's flow theory to provide the best possible chance for course participants to experience flow. An example is that participants need the opportunity to increase their skill set as challenge levels on trips increase. Accordingly, outdoor education course participants who are not given the time and instruction to polish skills prior to being placed in extremely challenging and adverse conditions will not likely experience flow (Csikszentmihalyi & Csikszentmihalyi, 1990). Contrastingly, Outward Bound course participants who are

given too much time to master skills and fewer challenging experiences will not experience flow, and the course or experience will have a lower effect on the participants' overall life effectiveness.

### **Life Effectiveness and Flow**

Given the rapid increase in adventure programs that utilize challenge in the outdoors as an integral and critical part of their educational method, it is worth asking about their effectiveness. The concept of “life effectiveness” is that there are some personal skills that are important factors in how effective a person will be in achieving his/her desires/wishes in life (Neill, 1994). Philosophies of outdoor organizations, promotional material, and outdoor instructors' feedback collectively express the view that outdoor programs are “good” things for people (Henderson, 1987).

For many outdoor educators, this sort of subjective evidence speaks for itself. For other people, what can be seen, heard, and felt on an outdoor expedition is what outdoor education is really about. Although Neill (1994) advocates for the most prevalent claims that outdoor education programs where “flow” is achieved make a valuable contribution to a person's sense of himself or herself, he agrees that it is more difficult to establish “scientific proof” for or against the numerous claimed benefits of outdoor expeditions. As a result, Neill used existing meta-analytic research (Cason & Gillis, 1994) to design and widely pilot a research tool called the “Life Effectiveness Questionnaire” (Neill, 1997) to measure self-perceptions before and after outdoor expeditions in an attempt to accomplish three key goals.

The primary goal of developing a research tool was to determine what the impact of outdoor expeditions was on participants and to answer the question, “Are



people any different after participating in challenging outdoor activities?” A secondary goal was to set a new company standard for the way that research is collected from outdoor expedition course participants because, up until this point, each outdoor company/school relied on different techniques to collect feedback. These techniques included, but were not limited to, measuring the effects of outdoor education in the forms of testimonial support, anecdotal examples, passionate rhetoric, and various different questionnaire models (Neill, 1997).

The importance of creating and implementing a “company standard” for collecting data about the effects of outdoor education on participants was derived from the results of five major meta-analytic studies (i.e., Bunting & Donley as cited in Neill, 1997; Cason & Gillis, 1994; Hans, 2000; Marsh, 1999; Neill, & Richards, 1998). These five relevant studies indicated the overwhelming trend that each outdoor education institute/school collects information on participant experiences differently. The incongruence in data collection techniques is problematic because it illustrates that currently there is no uniform system for measuring participant experiences.

The absence of a “company standard” results in too little specific information about what types of outdoor adventure programs work most effectively and gives outdoor program providers the opportunity to publish only their positive results. If we are serious about improving participant experiences as opposed to self-promoting through individualized data collection methods, and if we are serious about collecting honest/reliable participant feedback, then the industry as a whole needs to create a degree of uniformity and transparency with respect to the collection of data on program participant experiences.

A third goal of Neill's (1997) research was to answer the question, "What are the main areas of life effectiveness?" Neill summarized existing research and discovered that there are eight common factors or domains into which life effectiveness could be categorized, and he used these eight domains as the basis for his Life Effectiveness Questionnaire (LEQ). These eight domains are identified and described in the next section as well as summarized in Table 1.

### **Life Effectiveness and Self Effectiveness**

Steven Covey's (1990) *Seven Habits of Highly Effective People* is probably best known source of information about ways to positively develop effectiveness in everyday life. Covey's groundbreaking work provided readers with powerful lessons on positive personal development. Covey, an internationally respected leadership authority on personal development, identified seven areas, or habits, that people could work towards to improve their personal and professional lives. These habits were summarized into taking responsibility for one's own life, figuring out what one wants to do in life, not making excuses, being assertive, communicating openly, collaborating, and being a lifelong learner.

Similar to Covey, Neill (1997) developed a published set of areas that would help people to become more effective in life. Unlike Covey, Neill focused on areas of self development and self-concept and based his research tool on earlier work by Walsh and Golins (1976). Self concept is defined as the nature and organization of beliefs about one's self and is theorized to be multidimensional. For example, people have separate beliefs about physical, emotional, and social aspects of themselves (Walsh & Golins).

Table 1

*Description of the Life Effectiveness Questionnaire*

LEQ factor	Description
Time management	The extent that an individual perceives that he/she makes optimum use of time.
Social competence	The degree of personal confidence and self-perceived ability in social interactions.
Achievement motivation	The extent to which the individual is motivated to achieve excellence and put the required effort into action to attain it.
Intellectual flexibility	The extent to which the individual perceives he/she can adapt his/her thinking and accommodate new information from changing conditions and different perspectives.
Task leadership	The extent to which the individual perceives he/she can lead other people effectively when a task needs to be done and productivity is the primary requirement.
Emotional control	The extent to which the individual perceives he/she maintains emotional control when he/she is faced with potentially stressful situations.
Active initiative	The extent to which the individual likes to initiate action in new situations.
Self-confidence	The degree of confidence the individual has in his/her abilities and the success of his/her actions.

Furthermore, Neill's (1997) work is dissimilar to Covey's in that Neill divides these habits into eight different categories or domains to measure the effectiveness that outdoor expeditions have on the self-effectiveness of expedition participants. The domains that the life effectiveness research tool is divided into are:

- Time management
- Social competence
- Achievement motivation
- Intellectual flexibility
- Task leadership
- Emotional Control
- Active initiative
- Self-confidence

Neill (1994) writes that life effectiveness is closely related to notions of "personal skills," "life fitness," "personal competence," and "self-efficacy" (p. 3). The LEQ has typically been used to measure the short-term and long-term effects of intensive personal development programs, such as outdoor education programs, with adolescents or adults (Hattie et al., 1997). The instrument was originally developed to be used by participants over the age of 12 and has not been widely tested on participants with developmental reading problems. The LEQ is comprised of 24 questions that relate to the eight predetermined domains of self-effectiveness.

At the simplest level, the LEQ can be implemented to observe how much change there is in participants' self-perceptions between the beginning and the end of different types of outdoor programs. Neill spent 15 years developing a database of

4,500 Outward Bound participants and 1,000 participants from other outdoor education programs worldwide. Of the 5,500 participants, 2,000 were teenagers (aged 13-17). Of the 2,000 teenage participants, 1,850 were nonvoluntary participants (juvenile delinquents) and 150 were voluntary teenage participants. Data were collected using the LEQ which was designed to capture people's self-perceptions in a number of areas (see Table 1) that Outward Bound seeks to develop. The data were collected at four different time points: preexpedition, first day, last day, and at a follow-up time 6 months after the expedition ended (Neill, 1997).

Results from Neill's worldwide study indicated that challenge and multielement outward Bound programs that are 17 days or longer have the greatest impact on participants' view of self and self-effectiveness (Neill & Richards, 1998). Specifically, the research findings illustrate that time management was the area of most positive change. Self-confidence, emotional control, and task leadership came in next, and less impressive but still positive gains were made for active initiative, intellectual flexibility, and achievement motivation (Neill & Richards). I expected the results from my study to yield similar results to the longitudinal study conducted by Neill and Marsh, but I anticipated some idiosyncrasies due to the fact that my sample population was much smaller and consisted of voluntary teenage participants as opposed to juvenile delinquents.

Research illustrated that youth-at-risk programs have the lowest postexcursion positive change in "self" directly after the expedition but the most change when participants retested 6 months later (Neill, 1994). The areas of notable positive growth for these participants are time management, self-confidence, and emotional control. It

has been strongly suggested (Hattie et al., 1997) that more research needs to be conducted with respect to voluntary teenage groups on outdoor expeditions, as very little data on this specific group have been collected to date and more longitudinal studies are needed in this specific area of research.

### **The Role of Group on Self-Effectiveness**

The most relevant contributing factor to the impact that an expedition will have on a course participant is the unique social environment of the group. Research indicates that the ideal group size for outdoor expeditions is 8 to 14 people (Neill, 1997; Walsh & Golins, 1976). One theory by Walsh and Golins includes the claim that a group size of 10 is ideal for Outward Bound programs. A group of this size is small enough that all participants feel like they have a role in decision making in the group but large enough that there is diversity in opinion due to socioeconomic and culture differences that each participant brings to the group.

It is important to acknowledge that group dynamics take place regardless of group size, and it is the dynamics among individuals rather than the actual number in the group that are most likely to affect “psycho-social” (Neill, 1997, p. 2) outcomes. In addition, it is important to realize that an ideal group size of 10 does not guarantee a “fix all” solution for social harmony with respect to group dynamics on a trip. It is suggested that a group size of 10 in addition to specially trained group leaders have a higher success rate in achieving adaptive dissonance. Adaptive dissonance refers to the notion that all members of a group bring different opinions to the group but that group members are willing to be flexible in their thinking to consider the opinions of others in

the group when setting parameters for acceptable behaviour within the social constructs of the group (Neill).

In outdoor education, group sizes have been gradually getting smaller due to extensive research that indicates negative or adverse effects of large group sizes on the natural environment. The impact of group size on the overall experience should not seem that surprising, because mainstream schooling research illustrates a similar theme. Specifically, research indicates that there have been major advantages in academic learning for small class sizes and small staff-to-student ratios (Levine, 2002).

A second reason why group sizes have gradually lowered is in response to increasingly conservative safety and legal responsibility constraints. In an effort to make their courses as safe as possible, Outward Bound International (2004) states that:

[They] greatly value the unparalleled reputation its member schools have for risk management practices and safety. Unique physical environments, variable weather, and unforeseen circumstances mean that safety can never be guaranteed. Nonetheless Outward Bound strives to maintain standards throughout that reflect prudence, reasonable conduct and a commitment to the well-being of [their] participants by minimizing the group size to 14 people.

(Outward Bound International, 2004, p. 2)

### **Summary**

Outward Bound offers participants challenging outdoor experiences where each participant is an important member of the group. The courses are designed to expose participants to new and adverse challenges on which the group needs to work together to overcome. Outward Bound courses are designed so that certified instructors initially

teach participants the skills necessary to overcome the given set of challenges. Ideally, participants reach a state of flow where they are constantly using their new skill sets to overcome challenges, to develop their sense of self, and, therefore, to increase their life effectiveness.

In an attempt to measure the degree that Outward Bound courses impact life effectiveness, Neill (1997) used existing pedagogy to develop a Life Effectiveness Questionnaire. The purpose of the research tool is to measure life effectiveness change as it relates to the eight predetermined domains: (a) time management, (b) social competence, (c) achievement motivation, (d) intellectual flexibility, (e) task leadership, (f) emotional control, (g) active initiative, and (h) self-confidence. At the simplest level, the LEQ can be implemented to observe how much change there is in participants' self-perceptions with respect to their personal development between the beginning and the end of different types of outdoor programs.

In summary, the literature review on the effect of Outward Bound courses on course participants illustrates that there is a large quantity of text written about the benefits of Outward Bound courses but very little written about voluntary teenage participants. For this reason, it is important for the researcher to continue the study on the impact of Costa Rica Outward Bound on students in a independent school in southwestern Ontario to help to contribute to the current deficit in information available.



### **CHAPTER THREE: METHODOLOGY AND PROCEDURES**

This chapter outlines the steps that were followed in investigating 9 students in an independent school in southwestern Ontario on a 17-day Costa Rica Outward Bound expedition. The research methodology and participant selection process are explained. The means by which data were collected, recorded, and analyzed are outlined, followed by a discussion of the methodological assumptions and limitations.

#### **Research Methodology and Design**

A mixed methods research design was implemented for this study. This type of design involves the collection of both quantitative and qualitative data so as to lessen the weaknesses and limitations that exist when each type of data is collected by itself. By deliberately combining different types of data collection methods within the same investigation, triangulation can be used to establish and increase the credibility of the data and to create a more holistic representation of results of the study (Vogt, 2005). The mixed methods research design for this study included the collection of quantitative data obtained using the Life Effectiveness Questionnaire (LEQ), and qualitative data collected through interviews with participants and through the researcher's fieldnotes.

#### **Instrumentation and Field Procedures**

Data collection was achieved through the use of the LEQ (see Appendix A), through fieldnotes, and through informal group interviews that were recorded throughout the 17-day Costa Rica Outward Bound expedition. The following section describes the design and the layout of the LEQ in addition to the rationale for why the LEQ was chosen.

The questionnaire for this study consists of a cover letter and 24 questions. It was designed to collect limited background information on the participants of the study and information relating to perceptions of their life effectiveness involving the eight predetermined factors. The factors/domains of life-effectiveness include (a) time management, (b) social competence, (c) achievement motivation, (d) intellectual flexibility, (e) task leadership, (f) emotional control, (g) active initiative, and (h) self-confidence.

The 24 questions on the LEQ were designed so that participants could assess themselves on an 8-point Likert scale, with a response of 1 equating to *false* or *not like me* and 8 equating to *true* or *like me*. Questions 1, 9, and 17 were designed to measure the life-effectiveness domain of time management. Questions 2, 10, and 18 were designed to measure the life-effectiveness domain of social competence. Questions 3, 11, and 19 were designed to measure achievement motivation. Questions 4, 12, and 20 were designed to measure the life-effectiveness domain of intellectual flexibility. Questions 5, 13, and 21 were designed to measure the life-effectiveness domain of task leadership. Questions 6, 14, and 22 were designed to measure the life-effectiveness domain of emotional control. Questions 7, 15, and 23 were designed to measure the life-effectiveness domain of active initiative. Lastly, questions 8, 16, and 24 were designed to measure the life-effectiveness domain of self-confidence. The rationale for the short and simple instrument is that Neill (1994) acknowledged that most experience-based programs and instruments are often administered in “field” settings.

The LEQ was administered at four different times, and each time it took participants up to 10 minutes to complete. The questionnaire was given to participants

at the following intervals: (a) pretrip, (b) on the first day of the trip, (c) on the last day of the trip, and (d) one month after the trip. These intervals were designed to provide the researcher with a continuum of data to determine what the impact of the Costa Rica Outward Bound would be on the participants in terms of life effectiveness. The intervals were selected by the researcher to match up with the ones used in Neill's (1994) longitudinal study on life effectiveness.

In addition to the LEQ, fieldnotes were made by the researcher throughout the 17-day expedition. Boostrom (1994) states that although the process of collecting fieldnotes can be confusing and the problem of choosing what to look at can be daunting, this technique of collecting information can lead to a deeper perceptual understanding for the research (Boostrom).

The researcher accompanied the participants on the expedition to collect more reliable, firsthand information. The researcher did not have a leadership role in the group but did act as a participant who shared the experiences with the participants. The types of observations made by the researcher included, but were not limited to, how well participants used their time (e.g., packing up personal gear), social interactions among group members (e.g., hiking order and rafting partners), the level of effort put into tasks (e.g., high, moderate, or low), how open participants were to new ideas (e.g., listening skills), how participants led (e.g., style of leadership), what participants' moods were (e.g., happy, sad, excited, etc.), how participants got involved in activities (e.g., active involvement, passive involvement, etc.), and how confident participants verbalized themselves as being. The types of observations collected by the researcher were aligned

with each of the eight questionnaire areas. Fieldnotes were made at the end of each day, and data were collected and recorded in the researcher's journal.

In addition to participant observations, the researcher recorded the weather (including temperature and precipitation). These observations were incorporated into the fieldnotes in an attempt to understand the role of the quality of the experience for the participants and perception of risk. Research indicates that inclement weather can increase the perception of risk in teenagers on outdoor expeditions (Priest & Dixon, 1990). This is important to the study because the weather might affect the comfort levels of the participants and could increase the perceived risk, therefore having an effect on participant responses.

### **Participant and Site Selection**

The participants for this study were 9 independent school students, aged 14-18, from an independent school in southwestern Ontario. The trip was offered to all students in the independent school, and spots were determined by the Director of Education based on a first-come, first-served basis. Parents and participants were asked to attend a mandatory trip meeting 2 months prior to the Outward Bound trip. The purpose of the meeting was for the Director of Outdoor Education to explain the goals, itinerary, and expectations of the trip. The secondary purpose of the meeting was to invite students to participate in the researcher's study. It was also explained that participation was completely voluntary.

The expedition site was selected based on the Director of Outdoor Education's professional judgment, based on the Headmaster's approval, and based on the approval of the Research Ethics Board at Brock University (Appendix B). Costa Rica Outward

Bound has a long-standing history of providing safe, professional, and challenging expeditions for participants. Costa Rica Outward Bound has a risk management plan in effect that is initiated should a participant need medical attention, and has highly trained local and international guides.

### **Data Processing and Analysis**

Data collected in this study were analyzed in a variety of ways by the researcher. Nonparametric statistical analysis was implemented as a result of the small group size of participants. Manipulations that were run on the data include the Friedman test for covariance, means, medians, and the Wilcoxon Pairs Test. Fieldnotes and field recordings were transcribed by a professional transcriptionist and were organized and coded according to expedition days and the eight domains of life effectiveness. Both sets of data were grouped and discussed according to similarities and differences.

A generic approach was utilized in the qualitative data collection and analysis. In generic qualitative analysis researchers “seek to discover and understand a phenomenon, a process, or the perspectives and worldviews of the people involved” (Merriam, 1998, p. 11). The qualitative elements in this study focused upon deepening understanding of the social and emotional growth encountered by the participants on an outdoor expedition.

### **Methodological Assumptions**

The intent of this study was to determine the effect that a 17-day Costa Rica Outward Bound program had on teenage participants with respect to self-conceptions on improvements in life effectiveness. Although the amount of data collected on each participant was substantial, the study sample was numerically small and therefore not necessarily representative of the entire target population. In addition, participants’

opinions were sampled at just a few points in time during an extremely challenging expedition, with significant events and activities taking place between sampling periods.

Attempts were made in this study to control the influence of participants discussing responses on the questionnaire by physically spreading students out while filling in their responses. The study was undertaken, however, with the realization that the quality of feedback could be influenced from one participant to another during the debriefing sessions. Specifically, participants could have influenced each other's responses during the recorded group sharing sessions at the end of each day.

### **Limitations**

The purpose of the limitations section of the study is to describe some of the methodological limitations involved with the study. The anticipated limitations of the study included not studying more than one Outward Bound group, not being able to see the whole group at all times (e.g., due to hiking through dense rainforest, rafting down rivers), and not leading or biasing the answers in any way. Another important limitation is that participation in the Outward Bound expedition is voluntary; therefore it could be assumed that most participants will already have a bias for enjoyment of outdoor activities. A final important limitation to the study is the lack of assurance that the participants will honestly report their beliefs, feelings, and experiences. Loynes (1996) observed that there is a real and distinct danger of participants giving trip outcome feedback that they think the researcher wants to hear instead of authentic and meaningful feedback.

The implications of the limitations were moderated by changing the participant hiking/rafting order on a daily basis so that the researcher could observe all participants,

by not talking to or allowing participants to talk to each other while the questionnaires were completed, and assuring participants that all of their responses would be kept confidential.

### **Summary**

In summary, this chapter outlined the steps that were followed in investigating 9 students in an independent school in southwestern Ontario on a 17-day Costa Rica Outward Bound expedition. The research methodology that was used included a mixed methods approach. Data collection was achieved through the use of a Life Effectiveness Questionnaire created by James Neill (1997), through fieldnotes, and through informal group interviews that were recorded throughout the expedition. In addition, this chapter outlined how participants were chosen to take part in the study, how credibility for the study was improved through triangulation, and how ethical considerations were implemented.

## **CHAPTER FOUR: PRESENTATION OF RESULTS**

This chapter has three sections. The first section summarizes the participants' responses to the LEQ questionnaires; the second section summarizes observations made through fieldnotes and recordings, and the third section summarizes the answers to the research questions. Data collection was achieved through the use of a Life Effectiveness Questionnaire (LEQ) created by James Neill (1997). The LEQ is a self-report instrument that was designed to tap into key areas of life effectiveness. The purpose of this chapter is to present the results from this study. This chapter also summarizes fieldnotes and interview data to extrapolate any trends that emerge from the data. Trends in the quantitative and qualitative data are analyzed, and common themes and interpretations are discussed.

The questionnaires were completed by the participants at four predetermined time intervals. These time intervals included prior to trip commencement (T1), the first day of the trip (T2), the last day of the trip (T3), and one month after the trip ended (T4). The quantitative data from the questionnaires were analyzed using SPSS (ver. 8.0). Highlights of the observations made of each of the eight domains of life effectiveness will then be presented: (a) time management, (b) social competence, (c) achievement motivation, (d) intellectual flexibility, (e) task leadership (f) emotional control, (g) active initiative, and (h) self-confidence. Trends in the data will be analyzed and interpreted. Finally, common themes emerging from this analysis and interpretation will be discussed.



### Quantitative Analysis

The ages of the 9 participants involved in the study ranged from 14 to 17 years, with an average age of 15 years. The data were comprised of 56% ( $n = 5$ ) males and 44% ( $n = 4$ ) females. None of the 9 participants had ever participated in an Outward Bound course before. All of the participants took part in the study on a voluntary basis, and none of the participants exercised his or her right to leave the study before its completion. As a result, all of the findings are based on a sample size of 9, and all of the statistical analyses were conducted using nonparametric statistical testing.

The LEQ is a self-report instrument which has been designed to focus on eight key areas of life effectiveness (see Table 1). Each area of the LEQ was used to measure change over time. The Friedman test was used to measure and compare the confidence intervals for each of the four time intervals. The time intervals were used in relation to the eight LEQ factors and the overall questionnaire to determine if participants experienced a statistically significant change over time. When a statistically significant change was found over time among the mean scores, the Wilcoxon post-hoc test was used to determine where the changes occurred.

The first area of the LEQ is time management. Confidence varied significantly across the four time intervals for time management  $\chi^2(3, N = 9) = 12.80, p = .005$ . Statistically significant positive changes were found in participants' perceived levels of time management from prior to the trip ( $T1$ ) to the last day of the trip ( $T3$ )  $z = -2.43, p = .015$ , from prior to the trip ( $T1$ ) to one month after the trip ( $T4$ )  $z = -2.26, p = .025$ , and from the first day of the trip ( $T2$ ) to the last day of the trip ( $T3$ )  $z = -2.11, p = .035$  (Table 2).

Table 2  
*LEQ Factor Scores at Different Trip Time Intervals*

LEQ factor	Mean	Standard deviation
Time Management		
Prior to trip	11.78	5.31
First day of trip	13.44	6.71
Last day of trip	18.33	2.50
One month after trip	17.56	4.77
Social Competence		
Prior to trip	17.33	5.77
First day of trip	18.00	5.74
Last day of trip	20.56	3.00
One month after trip	20.22	3.53
Achievement Motivation		
Prior to trip	18.78	4.44
First day of trip	17.67	4.66
Last day of trip	21.00	2.40
One month after trip	20.00	3.12
Intellectual Flexibility		
Prior to trip	18.22	4.84
First day of trip	17.33	4.72
Last day of trip	20.00	2.65
One month after trip	20.00	2.87

(table continues)

LEQ factor	Mean	Standard deviation
Task Leadership		
Prior to trip	16.67	5.45
First day of trip	16.22	5.63
Last day of trip	18.89	3.66
One month after trip	20.00	3.12
Emotional Control		
Prior to trip	15.00	6.04
First day of trip	15.00	5.34
Last day of trip	19.33	3.08
One month after trip	19.44	3.78
Active Initiative		
Prior to trip	18.22	4.12
First day of trip	18.44	4.80
Last day of trip	21.00	2.60
One month after trip	21.00	3.00
Self-confidence		
Prior to trip	17.78	5.04
First day of trip	17.67	5.43
Last day of trip	21.89	1.54
One month after trip	21.11	2.57

*Note.* The maximum score is 24.

The second area of the LEQ is social competency. Confidence varied significantly across the four time intervals for this domain  $\chi^2(3, N = 9) = 8.47, p = .[037]$ . Statistically significant positive changes were found in participants' perceived levels of social competency from prior to the trip (*T1*) to the last day of the trip (*T3*)  $z = -2.02, p = .[043]$  (Table 2).

The third area of the LEQ is achievement motivation. Confidence did not vary significantly across the four time intervals for this domain  $\chi^2(3, N = 9) = 5.14, p = .[05]$ . The initial levels of achievement motivation were high, and the slight increase in this area was difficult to detect. The fourth area of the LEQ was intellectual flexibility. Similar to the previous area, confidence did not vary significantly across the four time intervals for this domain  $\chi^2(3, N = 9) = 7.43, p = .[05]$ . The initial level in the area of intellectual flexibility was relatively high, and it stayed high. The fifth area of the LEQ was task leadership. Confidence did not vary significantly across the four time intervals for this domain  $\chi^2(3, N = 9) = 7.50, p = .[05]$  (Table 2). The initial level for task leadership was moderate, and the slight increase in this area was difficult to detect.

The sixth area of the LEQ is emotional control. Confidence varied significantly across the four time intervals for emotional control  $\chi^2(3, N = 9) = 14.21, p = .[003]$ . Statistically significant positive changes were found in participants' perceived levels of emotional control from prior to the trip commencing (*T1*) to one month after the trip (*T4*)  $z = -1.96, p = .[05]$ , from the first day of the trip (*T2*) to the last day of the trip (*T3*)  $z = -2.02, p = .[043]$ , and from the first day of the trip (*T1*) to one month after the trip ended (*T4*)  $z = -1.96, p = .[05]$  (Table 2).

The seventh area of the LEQ was active initiative. Confidence varied significantly across the four time intervals for time management  $\chi^2(3, N = 9) = 9.55, p = .[023]$ . Statistically significant positive changes were found in participants' perceived levels of active initiative from prior to the trip (*T1*) to the last day of the trip (*T3*)  $z = -1.97, p = .[049]$  and from prior to the trip (*T1*) to one month after the trip (*T4*)  $z = -2.21, p = .[027]$  (Table 2).

The final area of the LEQ was self-confidence. Confidence varied significantly across the four time intervals for self-confidence  $\chi^2(3, N = 9) = 12.04, p = .[007]$ . Statistically significant positive changes were found in participants' perceived levels of self-confidence from prior to the trip (*T1*) to the last day of the trip (*T3*)  $z = -2.54, p = .[011]$ , and from prior to the trip (*T1*) to one month after the trip (*T4*)  $z = -2.11, p = .[035]$  (Table 2).

In addition to testing the eight LEQ domains for significant changes over time, a more holistic representation can be achieved by comparing the cumulative questionnaire scores over time (Table 3). Confidence varied significantly across the four time intervals for the cumulative overall scores for life effectiveness  $\chi^2(3, N = 9) = 13.38, p = .[004]$ . Statistically significant changes were found in participants' perceived levels of life effectiveness from prior to the trip (*T1*) to one month after the trip (*T4*)  $z = -2.19, p = .[028]$ , and from the first day of the trip (*T2*) to one month after the trip (*T4*)  $z = -2.31, p = .[021]$ . The results illustrate that there are some interesting differences in the amount of change for the eight LEQ domains and for the total LEQ scores. The eight prominent themes that emerged and the implications of these trends will be discussed in Chapter Five.

Table 3

*LEQ Total Scores at Different Trip Time Intervals*

LEQ factor	Mean	Standard deviation
Prior to trip	133.78	38.24
First day of trip	133.78	39.02
Last day of trip	161.00	16.16
One month after trip	159.11	21.04

*Note.* The maximum score is 196.

### **Qualitative Analysis**

In addition to using Neill's (1997) LEQ to collect data, fieldnotes were made throughout the 17-day expedition. Research states that although the process of collecting fieldnotes can be confusing and the problem of choosing what to look at can be daunting, this technique of collecting information can lead to a deeper perceptual understanding for the research (Boostrom, 1994).

The researcher accompanied the participants on the expedition to collect more reliable, firsthand information. The researcher did not have a leadership role in the group but did act as a participant who shared the experiences with the participants. The types of observations made by the researcher were organized according to Neill's eight domains of life effectiveness and according to the expedition days. The types of observations included, but were not limited to, how well participants used their time (e.g., packing up personal gear), social interactions among group members (e.g., hiking order and rafting partners), the level of effort put into tasks (e.g., high, moderate, or low), how open participants were to new ideas (e.g., listening skills), how participants led (e.g., style of leadership), what participants' moods were (e.g., happy, sad, excited, etc.), how participants got involved in activities (e.g., active involvement, passive involvement, etc.), and how confident participants appeared. Fieldnotes were made at the end of each day, and data were collected and recorded in the researcher's journal and on a digital recording device.

Throughout the second part of this chapter the researcher will summarize fieldnotes and recorded meetings to explore trends that emerged from the data and to determine if the qualitative field research authenticated the findings from the first part of

the chapter. The qualitative data were achieved through fieldnotes and through two informal group interviews that were recorded on the eighth day of the trip and on the last day of the 17-day Costa Rica Outward Bound expedition. Trends in the qualitative data were analysed using most frequently mentioned responses by participants, from which common themes emerged.

### **Observations of Time Management**

Time management is the extent that an individual perceives that he/she makes optimal use of time. Throughout the entire duration of the expedition time management played an integral role. Participants worked hard to improve how they used their time to ensure that the group could progress across various types of topography. The two Outward Bound instructors taught the group that “the group was only as strong as its’ weakest link,” and “that group participants would need to work together to make sure that everyone would be ready to take on each day’s challenges” (Journal entry Day 2).

Although participants were rarely, if ever, governed by a clock or a watch, they were governed by the rising and setting sun, the tides, and the weather. Students learned through trial and error that if they were lazy or irresponsible with respect to taking care of their personal gear or packing up their personal gear, the whole group would suffer by not being able to take as many breaks or by setting up camp in the dark. Students also realized that everyone in the group would have good days and bad days with respect to time management. Throughout the expedition participants learned to be observant and to learn to step in and pick up the slack for other members of the group who were experiencing difficulty with respect to a given task. Whether the task was packing up camp, preparing and cooking a meal for the group, descending a steep mountain slope to



fill water bottles for the group, or deciding how long the group needed for a break, time management always played a key role.

As a participant and a researcher on the expedition it was difficult at times during the expedition not to step in and assist the leader of the day when the group was progressing slowly. At times, it was painful to pack up my personal gear and to help out with group jobs such as taking down the sleeping tarp and preparing the meals only to find the other group members needed not minutes, but several hours to get ready for the day. During the first 3 days of the expedition the group took over 3 hours to get ready. I timed the group from when the leader of the day asked everyone to wake up to when all 13 members of the group were ready with their backpacks on.

As the days progressed participants learned how to improve their time management, and from the sixth day onwards the group was getting ready on a consistent basis in less than an hour and a half. To an average person, this may not seem monumental in any way, but when you are hiking in tropical climate the benefits of this improved use of time are incredible. The group members realized that by starting earlier in the morning they could be on the trail by 7 a.m. and therefore avoid hiking in 40°C weather during the prime heat of the day. Second, group members stated that “by managing their time better they could take longer rest breaks in the extremely undulating terrain.” A third student observation of using time better was that “the group would have more time to take refreshing swimming breaks in the waterfalls that littered the hiking route” (Journal entry Day 5).

When participants were asked on the last night of the trip “what the biggest thing is that they would take away from the trip,” a common theme emerged. Several students

mentioned that their time management skills and the way that they had chosen to use their time had changed. One of the participants who struggled the most with time management throughout the trip stated that “I learned how to manage my time and to be more efficient with packing and getting up in the morning and trying to get everything done.” A second participant echoed these sentiments and said, “that the main thing that I would take away from the Costa Rica experience was how I did not want to waste time and that there were so many amazing things to see and do in the world instead of sleeping in late, and wasting time watching TV,” and he believed he had grown as a person because he wanted more out of life instead of just being complacent (Journal entry Day 17).

The qualitative results for time management are congruent with the quantitative results. Both the group participants and the researcher perceived positive gains in this area of life effectiveness. Positive improvements in time management were reported by participants and were observed by the researcher. Not only were improvements in time management made, but the Costa Rica Outward Bound experience made participants feel like they grew as people into more productive contributing members of society who wanted more for themselves out of life.

### **Observations of Social Competency**

Social competency is the degree of personal confidence and self-perceived ability in social situations. Throughout the expedition the group leaders had an important role of setting parameters for the group and of modeling appropriate behaviour for all group members. One important example of this was the model that the leaders set when group members disagreed on various issues. Leaders modeled to the group that minor

disagreements would be dealt with during the nightly sharing circle time. During this time participants were taught that everyone who needed a chance to talk would be given the opportunity to do so without being interrupted (Journal entry Day 2).

Issues that were dealt with during nightly meetings included disagreements about how much group gear each person should carry, the order of showering during the rare occasions at home-stays when showers were available, and the hiking order. Group participants appeared to learn to save disagreements until this predetermined time to improve the social environment of the group, helping them to bond into a cohesive unit. It is important to realize that group dynamics take place regardless of the group size, but in our group, students were afforded the opportunity to improve their social competency skills by each having the opportunity to be the “Cacique” or “The leader of the day.” This unique opportunity appeared to give all participants the chance to be a leader and to be led.

Participants commented that “the structure of having a leader of the day helped with getting to know everybody in a completely different way” and “with seeing the group interact with one another and progressing and maturing, and becoming more of a group rather than individuals.” During the sharing circle on the second night of the expedition, one participant disclosed that “he did not believe that he had any friends at home and that his own brothers did not like him” (Journal entry Day 2). During the last sharing circle meeting of the trip the same participant emotionally rocked the entire group when he stated that “I now know that I have friends, and that I will try to be more outgoing at school now that I have the confidence socially” (Journal entry Day 17).

The qualitative results for social competency are mostly congruent with the quantitative results. Both the group participants and the researcher perceived positive gains in this area of life effectiveness. Positive improvements in social competency were felt by participants and were observed by the researcher. Interestingly, the students who had the opportunity to be the leader of the day more than once perceived themselves to improve more in this area of life effectiveness than the participants who had only one opportunity to lead the group.

### **Observations of Achievement Motivation**

Achievement motivation is the extent to which an individual is motivated to achieve excellence and to put the required effort into action to achieve. The most notable positive examples of achievement motivation took place during one of the home-stays on the ninth day of the expedition. The setting of the home-stay on this day in particular was at a place referred to as “the adventure house.” The name is warranted due to the array of exciting and challenging activities that participants encounter at this location. These included swimming in rapids, climbing a 200-year-old tree, rappelling down a 150m high waterfall, and traversing a whitewater river by pulling a makeshift wooden cable car across the river.

During this section of the course, participants found themselves participating in activities with a high perceived level of risk. The activity that required the most effort in which to achieve excellence was the old growth rainforest tree climb. During this activity, students were taught how to wear a climbing harness and were belayed by two group members. The goal of the activity was to develop trust within the group. Specifically, belayers were responsible for preventing climbers from falling too far if

they slipped while ascending the tree. Students took turns climbing until only one participant remained.

The last participant to attempt climbing the tree was afraid of heights but was determined to climb to the top of the tree. The student attempted to climb the tree three times with his group members cheering him on, but much to his dismay, he could not reach the platform at the top. The Outward Bound instructors took the student who was having a difficult time over to a small rock outcropping where he could practice his newly acquired rock climbing skills. The group broke for dinner and the student announced, "After dinner, I am going to take a fourth shot at overcoming my fears." As a result, everyone in the group rushed to clean up and headed back to embark on helping the student overcome the challenge (Journal entry Day 8).

After 25 minutes of hard work, with the sun setting behind him, the participant managed to achieve his goal in the tree climbing activity by ascending to the platform at the top. It is possible that it took this student longer to master the basic climbing skills necessary to conquer the tree climb and therefore it took him longer to achieve a sense of flow. Initially, the challenge surrounding this activity was not balanced with the participants' skill set. Through trial and error the participant developed the climbing skills necessary to eventually meet the challenge of climbing the old growth tree. All the while that the participant was not achieving a state of flow he was frustrated, but not disheartened. After receiving more time and instruction to develop his climbing skills set, the student was able to achieve flow and overcome a challenge that he had perceived as being insurmountable earlier in the day.

At the end of the expedition participants were asked what they would take away from the trip experience and transfer back to everyday living, and 2 participants stated that “they could push themselves harder than they have been, and that they used to think that they needed to rest when they felt tired, but now they have realized that they can dig deep and push themselves harder than they ever thought was possible.”

Although some individuals in the group displayed outstanding personal improvement in the achievement motivation domain of increasing life effectiveness, some did not. One such example was during the surfing component of the expedition. The surfing component of the course took place along the Pacific coast of Costa Rica, about 30 kilometers southeast of the town of Quespos. The surfing instruction component lasted for 2 days during the 12<sup>th</sup> and 13<sup>th</sup> days of the expedition.

On the first of the 2 days of surfing instruction the group participants were eager to listen and to try to learn the basics of surfing. However, during the second day of instruction some participants gave up early in the morning and refused to try to improve. It is possible that group members were fatigued from the sun and surf and from the demands of all of the activities done prior to the second day of surfing.

It is interesting that very few students had high achievement motivation during this element of the trip, because on the first day of the expedition all of the students were asked “what activity they were looking forward to the most,” and the majority of the 9 participants replied, “learning how to surf” (Journal entry Day1). During the evening sharing circle, participants were asked to comment on the day’s activities. Participants commented that their fatigue and overexposure to the sun were the two main reasons why

they were not motivated to make the most of the second day of surfing (Journal entry Day 13).

There is some disparity between the qualitative results and the quantitative results for achievement motivation. Interestingly, the group participants did not perceive significant changes while filling in the LEQ during the four different intervals. However, the researcher did observe some of the participants making positive gains in this area of life effectiveness. The positive improvements in the area of achievement motivation appeared to vary according to individual participants and varied according to the activities that were being done. The group achievement motivation for tree-climbing on day 8 of the expedition was high, but the achievement motivation for surfing on day 13 was relatively low for some participants.

### **Observations of Intellectual Flexibility**

Intellectual flexibility is the extent to which the individual perceives he/she can adapt his/her thinking and accommodate new information from changing conditions and different perspectives. Group participants appeared to be flexible with actions and possibly their thinking when they were guests during the home-stays. On the fifth day of the expedition the group hiked down out of secondary rainforest to the first of five home-stays. The home-stays provided students with the opportunity to observe how people subsist in a rainforest environment and also provided the students with opportunities to interact with the locals by speaking Spanish and taking part in regular daily activities.

Group members appeared to be open to learning new indigenous skills such as harvesting sugar cane, milking cows, helping with household chores, and taking part in a ceremony where a chicken had to be slaughtered for dinner. Prior to the chicken being

beheaded, group members were asked to carefully pass the chicken around the circle to “feel the life that would be rendered to give the group protein to make them healthy” (Journal entry Day 5). The mood was serious and respectful, and the local people taught the group how to kill the chicken and how to pluck it in preparation for cooking.

During the evening sharing circle, participants were asked to share their opinions on the day’s events, and one participant explained that “the biggest thing I learned so far on the trip was how luxurious our lives are at home and how primitively people live in the rainforest and how much energy they have to expend just to survive.” The same student stated that “I will remember these people always and will always think about conserving energy and resources because with the luxurious benefits of having modern day conveniences comes loss of natural habitat through deforestation and drilling for fossil fuels.”

Although students were intellectually flexible when they were guests in local homes, they appeared to be rigid in their thinking when dealing with each other. Participants found it particularly difficult being the leader of the day during the hiking component of the expedition. One such example was on the second day of the expedition when the hiking segment was “overgrown, extremely hilly, and never-ending.” The leader of the day tried to lead by using a dictatorship style, which was not well received by the group. Specifically, the leader tried to limit rest breaks to stopping once per hour to take the backpacks off for 10 minutes.

The group tried to convince the leader of the day that they needed to take breaks more frequently, but the leader was inflexible and pressured the group to push on. Eventually, the group boycotted against the leader of the day and just sat down on the



trail and refused to continue until everyone was ready to persevere. Later that evening, during the sharing circle, the leader of day apologized to the group for being so inflexible with respect to his leadership style. He told the group that he learned a valuable lesson and that he not only felt badly but he felt embarrassed to have used the leadership power inappropriately. The implication of the leader's apology on the group was that the group rallied behind him and suggested that he should have another chance being leader of the day later on in the expedition.

There is some discrepancy between the qualitative results and the quantitative results for intellectual flexibility. Interestingly, the group participants did not perceive significant changes while filling in the LEQ during the four different intervals. It is possible that perceived growth did not take place in this area because the initial levels were high and therefore slight increases were difficult to detect. However, the researcher did observe some of the participants making positive gains in this area of life effectiveness, such as during the home-stay section of the expedition. The positive improvements in the area of intellectual flexibility appeared to vary according to individual participants and varied according to the activities that were being done.

### **Observations of Task Leadership**

Task leadership is the extent to which an individual believes he/she can lead other people effectively when a task needs to be done. Throughout the duration of the expedition, participants each took two turns being the leader of the day. Although each student led in a different way, a pattern emerged. The students who led during the first three days of the trip tried to lead by ordering their peers around and therefore were relatively unsuccessful in terms of getting group tasks done in a timely manner. Some

examples of situations where leaders had difficulty motivating and managing the group were getting people to come out from under the sleeping tarp, taking down camp in the morning, and making breakfast.

The leader on the fourth day set a precedent of leading by consensus. This leader illustrated that involving group members in the decision-making process would empower them to want to help in terms of task completion. This leader thought ahead, and the night before it was her turn to be the leader she asked the group, “when do we want to wake up in the morning?” and “who wants to be responsible for taking down the tarp?” She also reminded the group who the “cocineros” (cooks) were for the upcoming day (Journal entry Day 4). This leader modeled positive leadership and consequently all leaders from the fourth day onward led by using consensus.

The qualitative results for task leadership are comparable to the quantitative results. Some of the group participants perceived positive gains in this area of life effectiveness. While the researcher observed improvements in the area of task leadership, the improvements were not as strong as in some of the other areas such as time management. One possible explanation for the moderate improvement in the area of task leadership was because the activities kept changing throughout the expedition (back-country hiking, home-stays, whitewater rafting, rock climbing, and surfing). It is possible that more positive improvements in task leadership would have occurred if the participants had longer to master each of the various elements of the expedition or if there were fewer activities for students to master. According to flow theory, in order for flow to occur, skill and challenge have to be in balance. It is possible that outcomes for this dimension of life effectiveness were low due to a high level of challenge placed on

participants and a deficit in the amount of time needed to develop the skills to attain the desired outcomes.

### **Observations of Emotional Control**

Emotional control is the ability to keep calm when faced with potentially stressful situations. On the seventh day of the expedition the course participants were required to use all of their newly learned survival skills to survive on their own. Students were prepared to embark on a solo experience. A solo is an experience where a participant spends a period of time alone in a given area (Priest & Dixon, 1990). Solos can provide powerful opportunities for participants to reflect and to reconnect with their true selves (Knapp & Smith, 2005).

The goal during this period of time is to give participants the time to reflect upon themselves, group relationships, personal relationships, and recent experiences. Outward Bound adopted this method in an attempt to test survival skills to facilitate reflection as a culminating activity at the end of a physically and mentally demanding section of a multielement course (Wilson, 1981). Prior to being placed in the wilderness by the two Outward Bound instructors, students were required to participate in a presolo group meeting.

During this meeting, the instructors reviewed survival skills such as tying knots for tarps and emergency distress signals. Following the review of survival skills, students were given an open space time to share their feelings with the group. The participants described their feelings using words like, "I am nervous, I feel scared, I am curious, I feel confident, and I feel prepared" (Journal entry Day 7). Students were led in silence to their

solo spots and were told that they were to stay in their designated area until they were retrieved in the morning.

Throughout the night that the students were on solo I found it particularly difficult to think of myself as a researcher, and I realized that my role in the group had changed. It was no longer possible for me to hang back and be on the periphery of the group, observing, recording, and writing. I now found that I had emotionally moved from the periphery just outside the circle of the group to being a full-fledged participant observer. It is difficult to record exactly when this change occurred, but I can document that during the 16 hours that the group was on solo, I did not get any sleep. I emotionally knew that all of the participants were capable of taking care of their basic needs, but I worried about them in an emotional way.

The Outward Bound instructors retrieved all 9 students and brought them back into a circle formation, and students were asked about their solo experience. One student said "I was nervous and then how I heard a bird chirping and how it relaxed me." A second student said "I set up my tarp and went to sleep straight away and was awakened in the dark some time later by a four-legged animal." He continued by saying, "that he was petrified to move for about 20 minutes and then had the courage to turn on his headlamp and discovered that the animal was the dog from the home-stay." He concluded by saying that "what I found unbelievable was how quickly this animal that scared the life out of me became my protection for the night and calmed me."

All of the participants were asked "if they learned anything about themselves during the solo that surprised themselves?" One student responded that the most profound thing that she learned was that she could be on her own and that she had

reached a level a calm that she did not think that [she] had ever reached before. She stated that “it was like really nothing that she had ever experienced before.” Another participant responded by saying that she wrote down personal goals during the solo. She reflected about what she was doing in her life and where she wanted to go personally and scholastically. She came to the conclusion that she should “try harder in school and with her family relationships” (Journal entry Day 8).

The qualitative results for emotional control are congruent with the quantitative results. Both the group participants and the researcher perceived positive gains in this area of life effectiveness. Positive improvements in emotional control were strongly perceived by participants and the researcher after the solo component of the expedition and at the conclusion of the expedition during the final sharing circle. Both male and female participants appeared to perceive equal personal growth in the area of emotional control.

### **Observations of Active Initiative**

Active initiative is the extent to which the individual likes to initiate action in new situations. The multielement Outward Bound course affords participants the opportunity to experience a series of challenging experiential activities and the opportunity to take a turn leading the group to try to achieve success. Growth of an active initiative nature appeared to manifest itself through challenge and support on the trip. Specifically, participants navigated their way through a series of physically and emotionally challenging events.

Highly certified, experienced instructors are available to teach essential hands-on skills and safety procedures to the group. Instructors are not only trained to model

behaviour that sets a process in motion, but they are also trained to step back to allow group participants to initiate the use of their newly acquired skills. The group process that is set in motion encompasses the philosophy that in order for leaders to succeed at initiating action in new and sometimes challenging situations, they need to be given the opportunity both to problem solve in order to overcome the challenge and to support the group.

At times during the expedition it may have been perceived as tough love when instructors stepped back from potentially time-consuming group dilemmas. One such example was on the second night of the expedition when the group participants had an extremely difficult time setting up the massive tarp under which the group would later sleep. Outward Bound instructors patiently waited for 25 minutes while group participants put on rain ponchos and proceeded to talk about the rain downpour. After a very wet lesson, group participants finally took the initiative to start setting up the tarp. Later on, when I quietly asked the instructors why they did not decide to take charge and to instruct the group participants to put up the tarp instead of having group participants standing around chatting, they responded “[that] the purpose of the activity was to illustrate the importance of taking active initiative” (Journal entry Day 2). Group members learned in a very wet, very tactile way that the lack of active initiative caused all of them to be soaking wet (despite the ponchos), and all of the gear was also thoroughly drenched.

A second example of this type of learning happened when one of the apprentice Outward Bound instructors made what appeared to be a bad decision on the 11<sup>th</sup> day of the expedition. The young, less experienced Outward Bound instructor decided to leave a

student in a whitewater kayaking raft alone to negotiate relatively small rapids while she paired up in a kayak with another instructor. What the instructor failed to notice was that the student's perceived level of danger was extremely high, as she had never paddled alone before. When the remaining 8 students noticed the scope of the situation, they rallied together and changed boats to accommodate the scared student. During the evening sharing circle, the students in the group took it upon themselves to unite together and to address the issue with the Outward Bound instructor.

Examples of students increasing their initiative in new situations happened every day throughout the course. A notable example was how all of the participants in the group took the initiative to speak Spanish to the Costa Rican guide and to speak Spanish to the families with whom they stayed during the home-stays. Other examples include, but are not limited to, taking a turn to teach an educational lesson about Costa Rica, taking a turn to be the leader of the day, taking a turn to be the medicine person, and taking a turn to be the cook for the day.

The qualitative results for active initiative are congruent with the quantitative results. Both the group participants and the researcher perceived positive gains in this area of life effectiveness. Positive improvements in active initiative were felt by participants and were observed by the researcher at various times during the expedition.

### **Observations of Self-Confidence**

Self-confidence is the degree of confidence the individual has in his/her abilities to succeed. During the first hour on the first day of trekking through the rainforest, all members of the group were emotionally and physically tested. Various members of the group verbalized their concerns about being able to continue. Participants struggled

with their heavy packs, the insects, the unrelenting scorching sun, and the unrelenting hilly terrain. An hour into the hike 2 participants were crying in despair about not being able to continue. The group bonded together, and the Outward Bound instructors overcame the problem by redistributing the group gear so that the students who were struggling could hike with lighter packs (Journal entry Day 1).

Throughout the expedition the group continued to bond by working as a team and by supporting one another through challenging times, embarrassing times, frustrating times, and humorous times. The group appeared to become a safe, nonthreatening place where people could vent their frustrations, speak freely, laugh freely, and experience new and exciting challenges together. As a result of the positive climate created by the group, the individual members appeared to feel comfortable trying new activities and sometimes overcoming their greatest fears. All members of the group appeared to develop self-confidence by encountering challenges and overcoming these challenges with the support of the group.

By the seventh day of the expedition, participants were ready to break away from the group to take part in an individual solo activity. All students completed the solo and appeared to grow even more confident. By the 10<sup>th</sup> day of the expedition, participants had the self-confidence to rappel down a waterfall and pull themselves across a whitewater river in a small cable car. By the 11<sup>th</sup> day of the course, students challenged themselves again by guiding their own inflatable whitewater kayaks down the Savegre River. The challenges continued, and the participants continued to rise to the occasion (Journal entry Day 11).



On the last night of the expedition, during the last group sharing circle, participants were asked to take part in a special frog ceremony. Eleven necklaces, each with a jade frog, were placed in the middle of the circle. Each member of the group was asked to pick a frog. Once everyone had a frog necklace, the Outward Bound instructors explained the importance of frogs in Costa Rican ecosystems and used an analogy of how each participant developed in self-confidence throughout the course similar to how a frog grows from a tadpole. The instructors explained that it takes time and experience for the tadpoles to grow into stronger and bigger frogs. The instructors also explained that time and experience had also helped the members of the group to learn new skills and to feel confident about themselves by overcoming challenges as a group and as individuals within the group.

The students were then asked to turn toward the person sitting to their right-hand side and to explain why that person deserved their frog necklace. Each student took his/her turn, and one student in particular summarized the growth in self-confidence in the following way when giving his frog necklace to the person beside him: "I am giving this frog to you because you have more courage than I have seen in a lot of people. You carried a pack more than half your body weight, you came on this trip without knowing anyone and speaking English as a second language, and you overcame your fear of spiders. You overcame all barriers and threw caution to the wind and still came. I think that is very admirable" (Journal entry Day 17).

The frog ceremony created the venue and set the tone for the final sharing circle. The ceremony reiterated the importance of self-reflection and group reflection. The final sharing activity facilitated reflection to take place after the extremely

demanding 17-day multielement Outward Bound expedition. The ceremony gave voice to individual and group achievements with respect to perceptions of growth in self-confidence and growth in all seven other areas of life effectiveness.

The qualitative results for self-confidence are compatible with the quantitative results. Both the group participants and the researcher perceived positive gains in this area of life effectiveness. Positive improvements in self-confidence were felt by participants and were observed by the researcher at various times throughout the 17-day expedition.

### **Summary**

The purpose of this study was to determine whether a 17-day Outward Bound wilderness expedition is an acceptable means of providing participants with an experience that will have an impact on their self-effectiveness. This chapter summarized quantitative data that were collected using James Neill's (1997) LEQ, and summarized qualitative data that were obtained through fieldnotes and recorded meetings in an attempt to determine if participants did indeed experience perceived personal growth that could be transferred back to everyday life.

Trends that emerged from the data were extrapolated and were analyzed using SPSS, and common themes and interpretations were discussed. The researcher accompanied the participants on the expedition to collect more reliable, firsthand information. Fieldnotes were made at the end of each day, and data were collected based on predetermined categories that were decided upon beforehand and were congruent with Neill's domains of life effectiveness. The fieldnotes were recorded in a journal which was used for content analyses. Daily group sharing circle debriefing discussions were

also recorded in the researcher's journal and on a digital recording device. Trends in the qualitative data were analyzed using most frequently mentioned responses by participants, from which common themes emerged.

In conclusion, significant positive perceived changes occurred using the LEQ in five of the eight areas of life effectiveness. Participants perceived personal improvements from the beginning of the expedition to one month after the expedition in the areas of (a) time management, (b) social competency, (c) emotional control, (d) active initiative, and (e) self-confidence. Participants did not perceive significant positive developments in the areas of achievement motivation, intellectual flexibility, and task leadership. It is possible that the initial levels in these areas of life effectiveness were high to begin with, therefore making slight increases or decreases difficult to detect.

The researcher who accompanied the group on the expedition observed individual and group growth in all eight areas of life effectiveness, but the growth was the strongest in the areas of time management, emotional control, and self-confidence. It is possible that the initial level in the area of social competence was already high because all of the participants came from the same school in southwestern Ontario.

## **CHAPTER FIVE: CONCLUSIONS AND IMPLICATIONS**

Being a teenager can be both magnificent and challenging. Teenagers must deal with tough issues and must make life-changing decisions. Teenagers deal with stress from issues such as self-image, friendships, peer pressure, family relations, achieving their goals, and managing their time. Outward Bound programs are designed to help participants build a set of skills that can help them navigate their way through calculated, risk-taking decisions in an outdoor environment. Outward Bound programs are designed to teach participants the skills needed to succeed in everyday life. The skills learned on Outward Bound programs are developed to assist teenagers in dealing with stress, friendships, and peer pressure that should, in turn, help them not only to cope with everyday life, but to thrive.

The purpose of this study was to describe the similar and different impacts shared by participants who had experienced a 17-day multielement Costa Rica Outward Bound expedition in March of 2006. Of concern is whether or not a 17-day wilderness expedition is an acceptable means of providing participants with an experience that would have an impact on their self-effectiveness. This study was an exploratory case study that to illuminate the impact of a 17-day Costa Rica Outward Bound trip on 9 teenagers aged 14 to 18 from an independent school in southwestern Ontario.

A mixed methods research design was implemented for this study. This type of design involves the collection of both quantitative and qualitative data so as to lessen the weaknesses and limitations that exist when each type of data is collection by itself. By deliberately combining different types of data collection methods within the same investigation, triangulation can be used to establish and increase the credibility of the

data and to create a more holistic representation of results of the study. The mixed methods research design for this study included the collection of quantitative data obtained by using the Life Effectiveness Questionnaire (LEQ) and qualitative data collected through interviews with participants and fieldnotes.

Quantitative data collection was achieved through the use of a Life Effectiveness Questionnaire (LEQ) created by James Neill (1997). The LEQ is a self-report instrument that has been designed to tap into key areas of life effectiveness. This questionnaire was completed by the participants at four predetermined time intervals. These time intervals included prior to trip commencement (*T1*), the first day of the trip (*T2*), the last day of the trip (*T3*), and one month after the trip ended (*T4*). The quantitative data from the questionnaires were analyzed using SPSS (ver. 8.0). Highlights of the observations made of each of the eight domains of life effectiveness (i.e., time management, social competence, achievement motivation, intellectual flexibility, task leadership, emotional control, active initiative, and self-confidence) were then presented. In addition to the LEQ, field notes were made by the researcher throughout the 17-day expedition. This technique of collecting information aided in achieving a deeper perceptual understanding for the research.

### **Does Outward Bound Work? Implications for Practice**

The data from this study illustrate that voluntary teenage participants increased their self-perceptions of life effectiveness by participating in the 17-day Costa Rica Outward Bound expedition. Specifically, the results showed that significant changes over time occurred in the areas of time management, social competency, emotional control, active initiative, and self-confidence. The perceptions of the participants

indicate that Costa Rica Outward Bound programs facilitate substantial personal growth in some areas of life effectiveness. The results showed that the most profound changes occurred in the areas of time management (27.29%), emotional control (18.50%), and self-confidence (13.46%).

The results of this study illustrated that something special transpired within the group of participants over a 17-day period of time. Participants were asked to put a finger on what exactly it was that happened. Responses varied, but three common themes emerged. The majority of the participants commented that the experience was life-changing as a result of the fact that they were challenged physically, emotionally, and socially. Second, participants commented that overcoming these challenges allowed them to bond as a group and to develop their self-confidence. It has been said that the most relevant contributing factor to the impact that an expedition will have on a course participant is the unique social environment of the group (Neill, 1997; Walsh & Golins, 1976). A third common theme that emerged was that participants felt like they were more empathetic towards other people, more empathetic towards the natural environment, and more in control of their emotions.

Another interesting implication of this research is that Outward Bound participants not only experience short-term benefits from Outward Bound programs but they also experience longer term benefits that are transferred back into everyday life. The data illustrated that the mean for all eight life effectiveness domains increased by 13.88% from the first day of the 17-day expedition to the last day of the expedition. Additionally, the data illustrated that one month after the last day of the expedition, participants still perceived their levels of life effectiveness as being higher than before participating in the

course by 12.91%. It seems that not only do program participants experience personal and social benefits over time, but the benefits seem to be lasting. More longitudinal research needs to be conducted at 6 month and 1 year intervals to determine if program participants retain the personal and social benefits embedded from the Costa Rica Outward Bound expedition.

Further evidence that substantiates this quantitative data came from comments by trip participants weeks after the conclusion of the expedition. Trip members left messages for the Director of Education thanking him for creating the opportunity for them to participate in the Costa Rica Outward Bound expedition. One participant stated that he was a different, more considerate, helpful person since returning from the trip. A second participant mentioned that she felt that she was more confident, more involved with her family, and that she felt happier. An additional example substantiating the results of the study is how, to this day, trip participants still high-five the teacher chaperones in crowded hallways in front of their friends.

Although research and actions indicate that the most profound increases in life effectiveness occur on outdoor expeditions that are 17 days or longer, these types of outcomes should prompt classroom educators and outdoor educators to consider a wider range of outdoor education program opportunities. Administration at the independent school in southwestern Ontario would benefit by continuing to develop the outdoor education program at the school to allow a greater number of students and staff accessibility to expeditions such as the one involved in this study. The school involved may want to consider providing separate expedition opportunities for parents of students at the school.

In addition, principals need to give interested staff members the time and funding to learn how to plan and implement outdoor experiential programs. Educators do not necessarily need to take their students on 17-day international expeditions, but they could start out by implementing smaller scale outdoor educational opportunities into their curriculum. While the transformative potential may not be as great during smaller scale outdoor educational outings as a 17-day expedition, the outdoor teaching environment should be used to enrich the existing curriculum. In addition, educators need to be given time and training to ensure that they understand the benefits of experiential education programs, to ensure that they are familiar with local companies that offer outdoor opportunities to school groups, and to ensure that they feel comfortable taking students into the outdoors.

### **Are Outward Bound Effects Equally Strong in All Areas of Life Effectiveness?**

#### **Implications for Theory**

It is important to note that Costa Rica Outward Bound courses are not a cure-all for all areas of self-development. It is interesting to consider that significant changes did not take place in three of the LEQ areas. These included achievement motivation, intellectual flexibility, and task leadership. Outdoor educators often claim effects in these areas, and although there are some positive outcomes, they are not as large as in other areas of life effectiveness. This does not necessarily mean that Costa Rica Outward Bound courses do not facilitate growth in these areas but may suggest that there are other factors to take into consideration.

It is possible that these areas of life effectiveness might be more stable and therefore more difficult to change on a 17-day trip. It is also possible that participants



may perceive themselves quite highly in these areas of effectiveness and therefore have less room to improve. Further research is needed with a specific focus on these areas of the LEQ to study whether either of these inferences is true.

One might question the legitimacy of the results of this small-scale study involving only 9 participants, but in the most comprehensive meta-analysis to date studying the effects of Outward Bound programs on participants, researchers studied over 4,000 program participants and concluded that the most profound benefits from outdoor programs were in the areas of time management, self-confidence, teamwork, and emotional control (Hattie et al, 1997). It is interesting to consider that results from a study involving so many participants yielded very similar results to the results from this smaller scale study. The similarities in the results are difficult to deny and these results suggest the pattern that the 33 worldwide Outward Bound Schools deliver programs where it is possible for participants to benefit on both personal and social levels.

It may be concluded that in the eight key areas of Neill's LEQ it has been seen that the most resistant area of personal growth is in achievement motivation followed by intellectual flexibility. It is important to use this information to help to adjust and improve program quality depending on group goals and to tailor programs according to the participants.

Although it is difficult to quantify the benefits of Outward Bound programs such as these, one student participant summed it up the best when, on the last night of the expedition, he said,

I hope that everything we have taken from this course does not end here tonight or tomorrow. I hope we take it back to our homes and our families and use

everything that we experienced to better our lives and the lives of those around us. That friendships and bonds have been made here continue upon our arrival back in Canada and are continued in school. I would love to find out months or even years from now that these bonds haven't been broken and that the common element from this trip between the nine of us will not be forgotten and that we will always support one another.

### **Implications for Further Research**

Based upon the results of the study, the findings illustrate that if the study was to be implemented again, it would be beneficial to implement it over a longer time span. Although this study followed participants up until one month after the expedition, one implication for future research would be to conduct a longer study. By conducting the study over a longer time span, the representiveness of the data could be enhanced by following Costa Rica program participants for a longer period of time to determine if the self-perceived program effects have longevity. It would be extremely interesting to remain in contact with participants over many months and years to illustrate if the benefits have longevity and, if so, for how long.

A second implication is that the independent school in southwestern Ontario should continue to develop opportunities for students to participate in intensive courses such as Costa Rica Outward Bound and courses offered through more local Outward Bound Schools such as the one in Burke's Falls, Ontario. Outward Bound courses and outdoor education opportunities in general should be promoted throughout the school as a valuable method of growing intellectually, physically, and socially. This

information should be used for the ongoing development of the unique educational experiences offered by Costa Rica Outward Bound.

An implication for future research would also be to conduct similar studies with participants from different socioeconomic backgrounds. It is important to note that the participants involved in the study had to pay a substantial amount of money to participate in the trip and had to have the support of the independent school that they attended to have the time off school. It is unrealistic to assume that all students in southwestern Ontario have the financial means, time, and parental support to participate in an adventure such as the one in which the 9 participants took part.

### **Final Word**

Outdoor education is the essence of life by virtue of the fact that it stimulates all of the senses, emotions, and physical being. There is something special that transpires among participants that is difficult to measure and quantify solely in a numeric approach. Outdoor experiential educational opportunities help to promote a greater understanding of environmental stewardship, global awareness, an increased sense of self, and increased cross-cultural interactions.

Life effectiveness is a term that has been created to characterize the importance of developing one's "self." Outward Bound founder, Kurt Hahn, believed in education that calls forth and develops the deepest qualities of character and compassion. Hahn (as cited in Gass, 1993) believed in the need for real "hands-on, practical challenges for the development of character of modern society" (p. 16). Outdoor education programs directed toward improving life effectiveness have been in existence for many years (McCarthy & McCarthy, 1984; Schultz et al., 1995;). Programs such as Outward

Bound have been addressing the needs of character development and personal growth since the early 1940s (Ewert, 1988).

Many researchers and outdoor experiential education practitioners have indicated a need for further research on the effects of Outward Bound programs on program participants (Hattie et al., 1997; Meyer & Wegner, 1998). The research conducted in this study has helped to highlight a contribution to the existing body of knowledge about the benefits that a Costa Rica Outward Bound course had on voluntary teenage participants aged 14 to 18. The opportunities provided to course participants have been documented through this research and illustrated in the form of a quantitative and qualitative analysis. This research adds to the existing body of knowledge by using James Neill's (1997) LEQ to universally quantify field data while at the same time staying true to the unique social climate created during the expedition. This research will help to improve and demystify the effects that outdoor programs such as the Costa Rica Outward Bound course have on voluntary course participants.

*I am part of all that I have met;*

*Yet all experience is an arch wherethro'*

*Gleams that untravel'd world, whose margin fades*

*Forever and forever when I move.*

*Tennyson, 1953*

## References

- Anderman, E. M., & Maehr, M. L. (1994). Motivation and schooling in the middle grades. *Review of Educational Research*, 64(2), 287-309.
- Boostrom, R. (1994). Learning to pay attention. *Qualitative Studies in Education*, 7(1), 51-64.
- Burr, W., & Christensen, C. (1992). Undesirable side effects of enhancing self esteem. *Family Relations*, 41(4), 460-464.
- Cason, D., & Gillis, H. L. (1994). A meta-analysis of outdoor adventure programming with adolescents. *Journal of Experiential Education*, 17(1), 40-47.
- Chapman, S., McPhee, P., & Proudman, B. (1992). What is experiential education? *Journal of Experiential Education*, 15(2), 16-23.
- Cohen, J. (1977). *Statistical power analysis for behavioural sciences* (revised ed.). New York: Academic Press.
- Conrad, D., & Hedin, D. (1981). National assessment of experiential education: Summary and implications. *Journal of Experiential Education*, 4(2), 6-20.
- Covey, S. (1990). *Seven habits of highly effective people*. New York: Simon & Schuster.
- Csikszentmihalyi, M. (1977). *Beyond boredom and anxiety*. San Francisco: Jossey Bass.
- Csikszentmihalyi, M. (1990). *Flow, the psychology of optimal experience*. New York: Harper Collins.
- Csikszentmihalyi, M., & Csikszentmihalyi, I. S. (1990). *Adventure and the flow experience*. In J. C. Miles & S. Priest (Eds.), *S. Adventure Education* (pp.149-155). State College, PA: Venture.

- Dewey, J. (1997). *Experience and education*. New York: Simon & Schuster (originally published 1938).
- Dyson, B. P. (1995). Students' voices in two alternate elementary physical education programs. *Journal of Teaching in Physical Education*, 14, 394-407.
- Ewert, A. (1983). *Outdoor adventure and self-concept: A research analysis*. Eugene, OR: University of Oregon, Centre of Leisure Studies.
- Ewert, A. (1988). *Outdoor adventure pursuits: Foundations, models and theories*. Scottsdale, AZ: Publishing Horizons.
- Gass, M. A. (1993). *Adventure therapy: Therapeutic applications of adventure programming*. Dubuque, IA: Kendall/Hunt.
- Hahn, K. (1957). *Outward Bound*. New York: World Books.
- Hans, T. (2000). A meta-analysis of the effects of adventure programming on locus of control. *Journal of Contemporary Psychotherapy*, 30(1), 33-60.
- Hattie, J. (1992). *Self-concept*. Hillsdale, NJ: Lawrence Erlbaum.
- Hattie, J., Marsh, H. W., Neill, J. T., & Richards, G. E. (1997). Adventure education and Outward Bound: Out-of-class experiences that have a lasting effect. *Review of Educational Research*, 67, 43-87.
- Henderson, B. (1987). Looking beyond the activity of outdoor pursuits. *CAPHER*, 53(2), 9-13.
- Kiewa, J. (1994). *Wilderness therapy for women*. Binghamton, NY: The Haworth Press.
- Kimball, R. O., & Bacon, S. B. (1993). The wilderness challenge model. In M.A. Gass (Ed.), *Adventure therapy: Therapeutic applications of adventure programming* (pp. 11-41). Dubuque, IA: Kendall/Hunt.

- Knapp, C. E., & Smith, T. E. (2005). *Exploring the power of solo, silence, and solitude*. Boulder, CO: Association for Experiential Education.
- Loynes, C. (1996). Adventure in a bun. *The Journal of Experiential Education*, 13(2), 52-57.
- Luckner, J. L., & Nadler, R. S. (1997). *Processing the experience: Strategies to enhance the general learning*. Dubuque, IA: Kendall/Hunt.
- Marsh, P. E. (1999). *What does camp do for kids? A meta-analysis of the influence of the organized camping experience on the self constructs of youth*. Unpublished master's thesis, Indiana University, Martinsville, IN.
- McCarthy, B. R., & McCarthy, B. J. (1984). *Community based corrections*. Monterey, CA: Brooks/Cole.
- McIntosh, H. (1989). Re-thinking the solo experience. *The Journal of Experiential Education*, 12(2), 28-32.
- McKenzie, M. (2000). How are adventure education program outcomes achieved? A review of the literature. *Australian Journal of Outdoor Education*, 5(1), 19-27.
- McKenzie, M. (2002). *Beyond the Outward Bound process: Rethinking student learning*. Unpublished manuscript, Simon Fraser University, Vancouver.
- Meyer, B. B., & Wegner, M. S. (1998). Athletes and adventure education. *International Journal of Sport Psychology*, 29, 243-266.
- Miles, J. C., & Priest, S. (1990). *Adventure education*. State College, PA: Venture.
- Mitchell, R. G. (1983). *Mountain experience: The psychology and sociology of adventure*. Chicago: University of Chicago Press.

- Neill, J. T. (1994). *The effect of Outward Bound high school programs on adolescents' self-concept, mental health, and coping strategies*. Honours thesis. Australia National University, Canberra, Australia.
- Neill, J. T. (1997). Adolescent coping styles and outdoor education. *Australian Journal of Outdoor Education*, 5(2), 3-7.
- Neill, J. T., & Richards, G. (1998). Does outdoor education really work? A summary of a recent meta-analysis. *Australian Journal of Outdoor Education*, 3(1), 2-9.
- Neill, J. T. (2003) Reviewing and benchmarking adventure therapy outcomes: Applications of meta-analysis. *Journal of Experiential Education*, 25(3), 316-321.
- Outward Bound International. (2004). *Outward Bound International annual general meeting minutes*. Vancouver, Canada: Author.
- Priest, S., & Dixon, T. (1990). *Practices in adventure programming*. Boulder, CO: Association for Experiential Education.
- Rhoades, R. (1972). *Paper trails*. Phoenix, AZ: Publishing Horizons.
- Richards, G. E. (1997). *Some educational implications and contributions of Outward Bound*. Sydney, Australia: Australian Outward Bound Foundation.
- Riggins, R. D. (1985). The Colorado Outward Bound school: Personality factors contributing to the leadership effectiveness of instructors. *Journal of Environmental Education*, 16(3), 6-11.
- Rossmann, J. R. (1995). *Recreation programming: Designing leisure experiences*. Champaign, IL. Sagamore.
- Schoel, J., Prouty, D., & Radcliffe, P. (1988). *Islands of healing: A guide to adventure based counseling*. Hamilton, MA: Project Adventure.



- Schuett, M. (1992-1993). Juvenile restitution and recreation. *Leisure Information Quarterly*, 18(2), 9-10.
- Shultz, L. E. Crompton, J. L., & Witt, P. A. (1995). A national profile of the status of public recreation services for at-risk children and youth. *Journal of Park and Recreation Administration* 13(3), 1-25.
- Spiro, M. E. (1993). Is the western conception of the self 'peculiar' within the context of world cultures? *Ethos*, 21(2), 107-153.
- Tennyson, A. (1953). *Tennyson poems and plays*. London: Oxford Standard Authors.
- Vogt, W. P. (2005). *Dictionary of statistics & methodology*. Los Angeles: Sage.
- Walsh, V., & Golins, G. L. (1976) *The exploration of the Outward Bound process*. Denver, CO: Colorado Outward Bound School. (ERIC Document Reproduction Service No. ED144754)
- Wilhite, B., & Keller, M. J. (1992). The role of therapeutic recreation in community involvement. *Therapeutic Recreation*, 8(3) 18-32.
- Wilson, R. (1981). *Inside Outward Bound*. Vancouver, Canada: Douglas & McIntyre.

## Appendix A

### Life Effectiveness Questionnaire

L.E.Q. - H<sup>©</sup>

NAME: \_\_\_\_\_ AGE: \_\_\_\_\_ (years)  
 DATE: \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
 MALE / FEMALE (circle one) COURSE CODE: \_\_\_\_\_ GROUP: \_\_\_\_\_

STATEMENT	FALSE not like me	TRUE like me
<hr/>		
01. I plan and use my time efficiently.	1	2 3 4 5 6 7 8
02. I am successful in social situations.	1	2 3 4 5 6 7 8
03. When working on a project, I do my best to get the details right.	1	2 3 4 5 6 7 8
04. I change my thinking or opinions easily if there is a better idea.	1	2 3 4 5 6 7 8
05. I can get people to work for me.	1	2 3 4 5 6 7 8
<hr/>		
06. I can stay calm in stressful situations.	1	2 3 4 5 6 7 8
07. I like to be busy and actively involved in things.	1	2 3 4 5 6 7 8
08. I know I have the ability to do anything I want to do.	1	2 3 4 5 6 7 8
09. I do not waste time.	1	2 3 4 5 6 7 8
10. I am competent in social situations.	1	2 3 4 5 6 7 8
<hr/>		
11. I try to get the best results when I do things.	1	2 3 4 5 6 7 8
12. I am open to new ideas.	1	2 3 4 5 6 7 8
13. I am a good leader when a task needs to be done.	1	2 3 4 5 6 7 8
14. I stay calm and overcome anxiety in new or changing situations.	1	2 3 4 5 6 7 8
15. I like to be active and energetic.	1	2 3 4 5 6 7 8
<hr/>		
16. When I apply myself to something I am confident I will succeed.	1	2 3 4 5 6 7 8
17. I manage the way I use my time well.	1	2 3 4 5 6 7 8
18. I communicate well with people.	1	2 3 4 5 6 7 8
19. I try to do the best that I possibly can.	1	2 3 4 5 6 7 8
20. I am adaptable and flexible in my thinking and ideas.	1	2 3 4 5 6 7 8

- 
21. As a leader I motivate other people well when tasks need to be done. 1 2 3 4 5 6 7 8
22. I stay calm when things go wrong. 1 2 3 4 5 6 7 8
23. I like to be an active, 'get into it' person. 1 2 3 4 5 6 7 8
24. I believe I can do it. 1 2 3 4 5 6 7 8

© These materials are copyright and may only be used with the permission of Garry Richards and James Neill

L.E.Q. - H<sup>©</sup>

PLEASE DO NOT TURN OVER YET

## READ THESE INSTRUCTIONS

This is a chance for you to consider how you think and feel about yourself in some ways. **This is not a test** - there are no right or wrong answers, and everyone will have different responses. It is important that you give your own views and that you be honest in your answers and do not talk to others while you think about your answers. They will be used only for research purposes and will in no way be used to refer to you as an individual at any time.

Over the page are a number of statements that are more or less true (that is like you) or more or less false (that is unlike you). Please use the eight point scale to indicate how true (like you) or how false (unlike you), each statement is as a description of you. **Answer the statements as you feel now**, even if you have felt differently at some other time in your life. Please do not leave any statements blank.

FALSE  
NOT LIKE ME

TRUE  
LIKE ME

1	2	3	4	5	6	7	8
This statement doesn't describe me at all; it isn't like me at all		More false than true		More true than false		This statement describes me very well; it is very much like me.	

## SOME EXAMPLES

A. I am a fast thinker.      1      2      3      4      5      6      7      8  
 (The 6 has been circled because the person answering believes the statement "I am a fast thinker" is sometimes true. That is, the statement is sometimes like him/her.)

B. I am a good storyteller.      1      2      3      4      5      6      7      8  
 (The 2 has been circled because the person answering believes that the statement is mostly false as far as he/she is concerned. That is, he/she feels he/she does not tell good stories.)

C I enjoy working on puzzles.      1      2      3      4      5      6      7      8  
 (The 8 has been circled because the person really enjoys working on puzzles a great deal, therefore the statement is definitely true about him/her.)

**\*\* ARE YOU SURE WHAT TO DO? \*\***

If yes, then please turn the page over, write your name, today's date, and circle your answers for all the statements.

**If still unsure about what to do, ASK FOR HELP.**

## Appendix B

## REB Clearance Form



**Brock  
University**

Office of Research Services

Research Ethics Office

St. Catharines, Ontario, Canada L2S 3A1

T: 905-688-5550, Ext. 3035/4876 F: 905-688-0748

[www.brocku.ca](http://www.brocku.ca)

DATE: February 17, 2006

FROM: Linda Rose-Krasnor, Chair  
Research Ethics Board (REB)

TO: Joe Engemann, Education  
Heidi Burrows

FILE: 05-187 BURROWS

TITLE: Enhancing Personal Effectiveness: The Impacts of Costa Rica Outward Bound

The Brock University Research Ethics Board has reviewed the above research proposal.

**DECISION: Accepted as clarified.**

This project has received ethics clearance for the period of February 17, 2006 to January 9, 2007 subject to full REB ratification at the Research Ethics Board's next scheduled meeting. The clearance period may be extended upon request. ***The study may now proceed.***

Please note that the Research Ethics Board (REB) requires that you adhere to the protocol as last reviewed and cleared by the REB. During the course of research no deviations from, or changes to, the protocol, recruitment, or consent form may be initiated without prior written clearance from the REB. The Board must provide clearance for any modifications before they can be implemented. If you wish to modify your research project, please refer to <http://www.brocku.ca/researchservices/forms> to complete the appropriate form **Revision or Modification to an Ongoing Application.**

Adverse or unexpected events must be reported to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants and the continuation of the protocol.

If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and clearance of those facilities or institutions are obtained and filed with the REB prior to the initiation of any research protocols.

The Tri-Council Policy Statement requires that ongoing research be monitored. A Final Report is required for all projects upon completion of the project. Researchers with projects lasting more than one year are required to submit a Continuing Review Report annually. The Office of Research Services will contact you when this form **Continuing Review/Final Report** is required.

Please quote your REB file number on all future correspondence.

LRK/bb

## **Appendix C**

### **Costa Rica Outward Bound Trip Itinerary**

Day 1-Depart for San Jose/Arrive at base camp in Tres Rios/Introductions/Duffle Shuffle

Day 2-Depart for Santa Maria/Spanish Lesson/ Hike into Camp 1

Day 3-Primary Rainforest Hike into Camp 2/Spanish Lesson

Day 4-Secondary Rainforest Hike into Camp 3/Cultural Lesson

Day 5-Secondary Rainforest Hike into Camp 4/Cultural Lesson

Day 6-Secondary Rainforest Hike into Home-stay 1/Chicken Ceremony/Spanish Lesson

Day 7-Open Field Hike into Home-stay 2/Solo

Day 8-Solo De-briefing/Community Service/Hike to Home-stay 3

Day 9-Harvesting Sugar Cane/Hike to Home-stay 4/Rapelling/Herbal Medicinal Lesson

Day 10-Rapelling/Tree Climb/Shaman Medicinal Lesson/Whitewater River  
Swim/Home-stay 4/Spanish Lesson

Day 11-Teak Forest Hike/Cable Crossing/Whitewater Lesson/Whitewater  
Kayaking/Home-stay 5/Cultural Lesson

Day 12-Whitewater Kayaking/Drive to Manuel Antonio National Park/Hike/Sleep  
Beach house/Spanish Lesson

Day 13-Surfing Lessons Manuel Antonio National Park/Surfing/Spanish Lesson

Day 14-Surfing/Depart for Volcan Arenal/Arrive at Arenal Hostel

Day 15-Hiking Volcan Arenal/Hot Springs/Sleep at Hostel

Day 16-Hiking/Depart for San Isidro/Shopping in Local Stores/Visit Local  
Artisans/Return to Base Camp in Tres Rios/Cultural Lesson

Day 17-Gear Cleaning/Spanish Lesson/Frog Ceremony/Celebration Banquet

Day 18-Depart for San Jose Airport/Return to Toronto